WellGate M1
(Single GSM gateway)

User Guide

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1. Introduction

This user's manual is ATA GSM system for ATA series GSM VoIP terminal adapter. This user's manual explains web configuration, and command line configuration for WellGate M1. Before using this device, some setup procedures are required to make the M1 GSM gateway work properly. Please refer to the "Instruction of Web Environment" for further information.

2. Hardware Overview

The WellGate M1 GSM gateway has the following interfaces: Network, GSM SIM card interface, LED indication, and power connector.

2.1 Two RJ-45 Network interface

These two interfaces support 10/100Mbps Fast Ethernet. You can connect WAN RJ-45 Fast Ethernet port to the ADSL or Switch, and connect the LAN port to your computer.

2.2 One GSM SIM card interfaces.

You can connect a GSM SIM card into the card try by pushing SIM card to lock. And push SIM card again to eject SIM card.

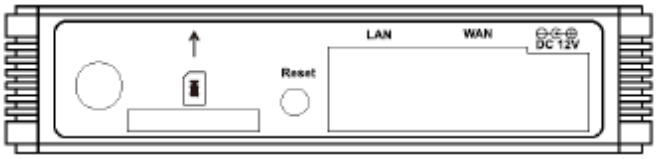
2.3 LED Indications

There are three LED indicators on the GSM ATA to show the Power, GSM system, SIP domain Register, WAN, and LAN status.

2.4 Rear Interface Descriptions

This is front panel printing and LED indications.

Item	Description
WellGate M1	Device model name.
Power	Power status. Power ON is light.
WAN	Shows device WAN port status. When WAN port connects successfully, the LED will light up.
LAN	Shows device LAN port status. When LAN port connects successfully, the LED will light up.
Status	Shows SIP domain account register status. When the SIP account registed to SIP Server completely, the LED will light up. When this device was used in P2P mode, this LED is OFF.
GSM	Shows SIM card of GSM gateway status if it connects to GSM Base Station successfully. Once GSM gateway registered to GSM BTS completely, the LED will light up.



This is back panel connection port and indication.

Item	Description
Antenna	Antenna connector. Before using this GSM gateway, Please install detachable Antenna at back panel. You can install dual bank (1800/1900 MHz) shorter antenna, or quad band (850/900/1800/1900 Mhz) longer antenna.
SIM Card Reader	Insert SIM card in tray. To remove SIM card from tray, simply press SIM card to eject.
Reset	Reset to default by hardware. Press it and hold on 5 seconds then release it. This device will run reset function and reboot by itself.
LAN	Connect personal computer.
WAN(PoE)	Connect ADSL or Cable Modem device. (If this device has PoE feature, use this port to connect PoE switch.). Note: PoE is an optional feature.
DC 9~12V (Internal-Positive; External-Negative)	Connect AC/DC power adaptor. Input voltage is 100 to 240 Vac.

Note. Please don't remove the SIM Card from SIM Card reader when this device is still in power on. Make sure to power off first before you remore SIM card. If you removed the SIM Card and want to insert it in SIM Card reader again when power is ON, You need to reboot the ATA_GSM device from its webpage configuration.

3. Software Overview

Network Protocol • SIP v1 (RFC2543), v2 (RFC3261) • IP/TCP/UDP/RTP/RTCP • IP/ICMP/ARP/RARP/SNTP • TFTP Client/DHCP Client/ PPPoE Client • Telnet/HTTP Server • DNS Client • NAT/DHCP Server	**Tone** • Ring Tone • Ring Back Tone • Dial Tone • Busy Tone • Programming Tone
Codec • G.711: 64k bit/s (PCM) • G.726: 16k / 24k / 32k / 40k bit/s (ADPCM) • G.729A: 8k bit/s (CS-ACELP) • G.729B: adds VAD & CNG to G.729 • G.723.1 • GSM	**GSM Function** • TX/RX Volume Adjustment • SIM card PIN code PUK unlock • Max call out time
Voice Quality • VAD: Voice activity detection • CNG: Comfortable noise generator • LEC: Line echo canceller • Packet Loss Compensation • Adaptive Jitter Buffer	**IP Assignment** • Static IP • DHCP • PPPoE
Call Function • Call Forward • Caller ID	**Security** • HTTP 1.1 basic/digest authentication for Web setup • MD5 for SIP authentication (RFC2069/ RFC 2617)
DTMF Function • In-Band DTMF • RFC2833 • SIP Info	**QoS** • ToS field
SIP Server • Registrar Server Account	**NAT Traversal** • STUN
	Configuration • Web Browser • Telnet
	Firmware Upgrade • TFTP • HTTP

4. Instruction of Web Environment

4.1 Default setting

4.1.1 Default network setting

Netwrok Mode: Default NAT Mode
WAN Port: DHCP Client Mode
LAN Port: DHCP Server Enable, IP Address: 192.168.123.1

4.1.2 Web login

VoIP Web Login default link, http://192.168.123.1:9999

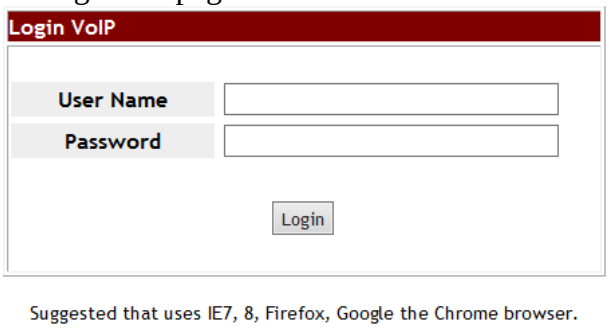
- Account Login :
  - Administrator: Login Account: root, Password: test
  - System: Login Account: system, Password: test
  - Normal: Login Account: user, Password: test

4.2 Network connection

Please connect PC Ethernet cable to LAN port, and set up PC to DHCP mode. Default IP address is 192.168.123.150 at your computer.

4.3 Login VoIP Web page

Provide login system management page.



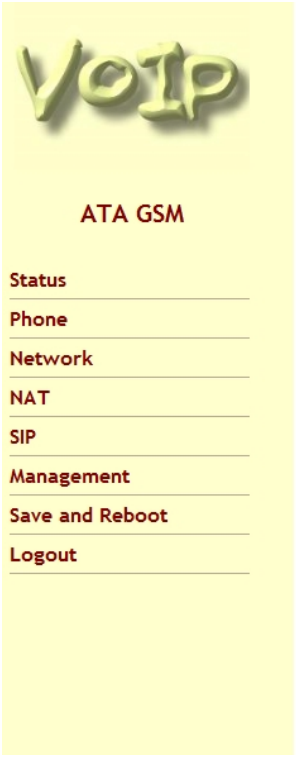
User Name	Input user's name, it can be numeral or letters.
Password	Input password, it can be numeral or letters.
Login [button]	Login activate.

4.4 VoIP main setting page

4.4.1 Function instructions

Provide below function [Information (system information), Phone (phone environment), Network (network environment), NAT (local network), SIP (SIP parameter setting), Management (enhance setting), Save & Reboot , Logout].

4.4.2 Function descriptions

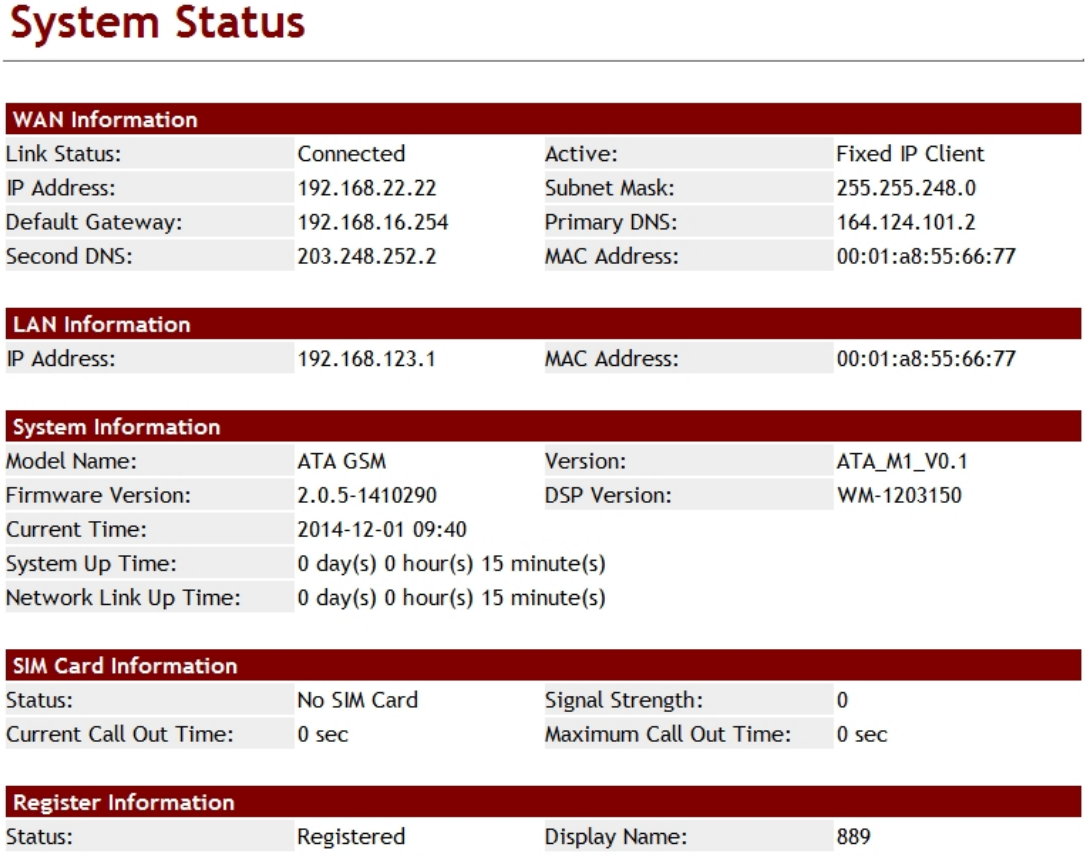


Item	Description
ATA GSM	Device type (WellGate M1).
Status	Current device information list table.
Phone	Provide GSM and Dial Plan function.
Network	Network setting provide [WAN , DDNS, VLAN , VPN (PPTP/L2TP), NTP (Time sync)] function.
NAT	NAT provide [LAN, DMZ & Mac Clone, Virtual Server] function.
SIP	SIP provide [Service (SIP registeration), Codecs, Advanced, STUN (STUN & Fource setting)] function.
Management	Management item provide [Status Log, Auto Provision, Auto Update, Firmware, Advanced, Password, Tones, Default (reset to default), Language] function.
Save & Reboot	Save and Reboot function.
Logout	Logout system.

4.5 System Information

4.5.1 Function description

There are network information, firmware version, GSM register, and SIP register status.

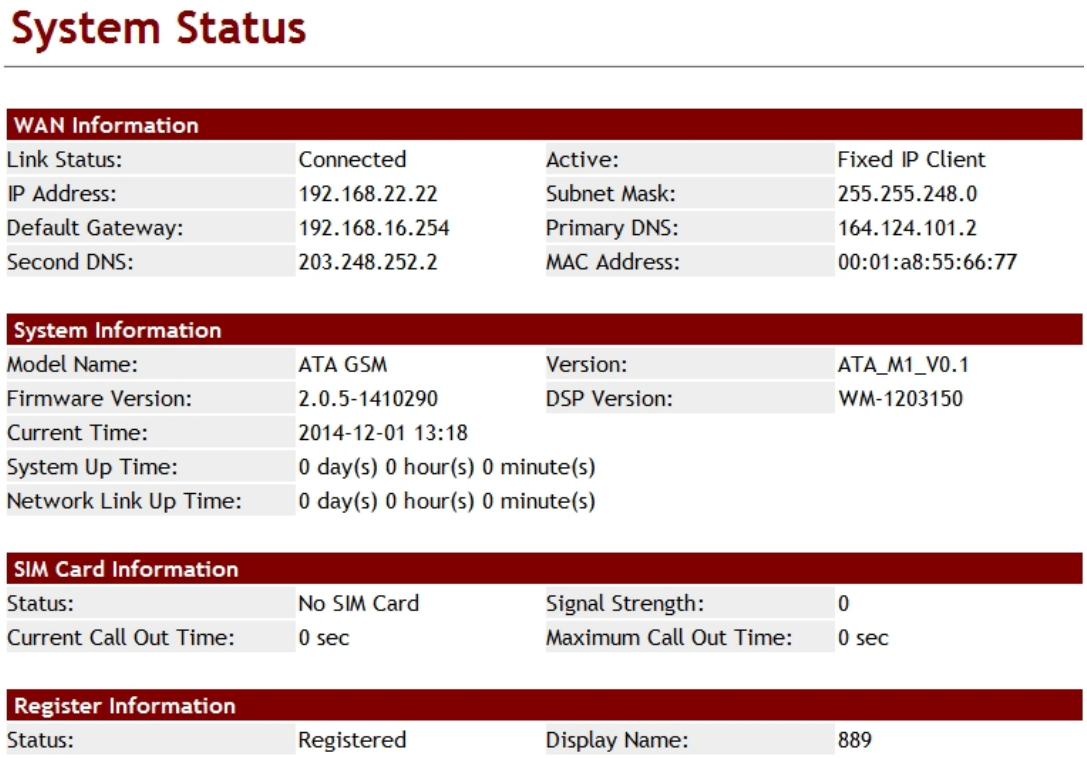


Item	Description
WAN Information	Shows the current status of WAN Port.
Link Status	Shows the network connected Speed.
Active	Shows the network connected type.
IP Address	Shows IP address of the device.
Subnet Mask	Shows the subnet mask.
Default Gateway	Shows the default gateway.
Primary DNS	Shows the primary DNS server.
Second DNS	Shows the secondary DNS server.
MAC Address	Shows the MAC ID.
System Information	Shows the status of System.
Model Name	Show device model name.
Version	Show device firmware version.
Firmware Version	Shows the firmware version for software control.
DSP Version	Shows the DSP version. AC: AC97 WM: Winbound LE: Legeeity NV:Nuvoton
Current Time	Shows the current time.
Update Date	Shows the date of updating system.

Item	Description
System Up Time	Shows the system running time.
Netwrk Link Up Time	Shows the network running time.
SIM Card information	Shows the SIM Card information.
Status	SIM Card status No SIM Card : This device can't detect SIM card or read SIM card failed. PIN Code Error : PIN code is wrong. Registered : SIM Card connect GSM BTS network successfully.
Signal Strength	GSM signal strength which was detected by this device. Reference GSM system standard.
Current Call Out Time	Shows the GSM system connection running time.
Maximum Call Out Time	The maximum outgoing call time limit.
Register Information	Shows the status of SIP register.
Status	Shows register state.
Display Name	Shows register number.

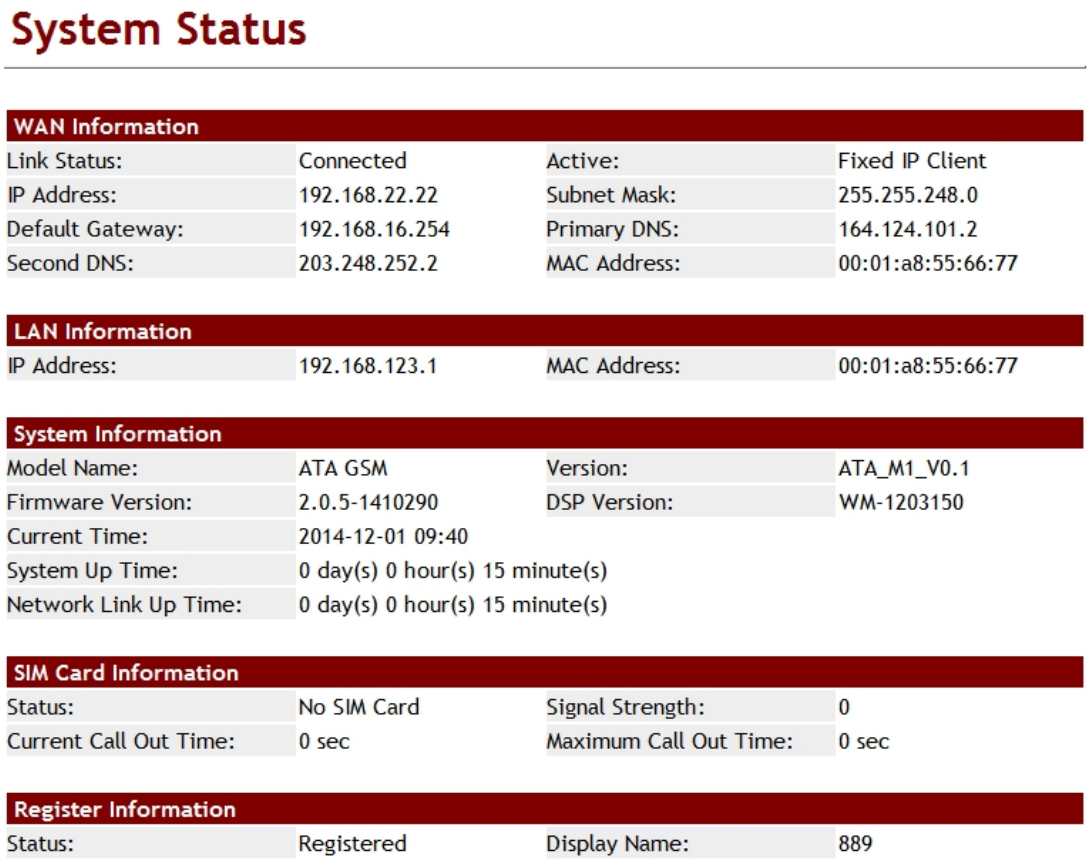
4.5.2 System Information example

Figure 1: LAN Mode: Bridge (Ethernet Switch mode)



(Figure 1)

Figure 2: LAN Mode: Router (NAT Router)



System Status

WAN Information			
Link Status:	Connected	Active:	Fixed IP Client
IP Address:	192.168.22.22	Subnet Mask:	255.255.248.0
Default Gateway:	192.168.16.254	Primary DNS:	164.124.101.2
Second DNS:	203.248.252.2	MAC Address:	00:01:a8:55:66:77

LAN Information			
IP Address:	192.168.123.1	MAC Address:	00:01:a8:55:66:77

System Information			
Model Name:	ATA GSM	Version:	ATA_M1_V0.1
Firmware Version:	2.0.5-1410290	DSP Version:	WM-1203150
Current Time:	2014-12-01 09:40		
System Up Time:	0 day(s) 0 hour(s) 15 minute(s)		
Network Link Up Time:	0 day(s) 0 hour(s) 15 minute(s)		

SIM Card Information			
Status:	No SIM Card	Signal Strength:	0
Current Call Out Time:	0 sec	Maximum Call Out Time:	0 sec

Register Information			
Status:	Registered	Display Name:	889

(Figure 2)

5. Phone

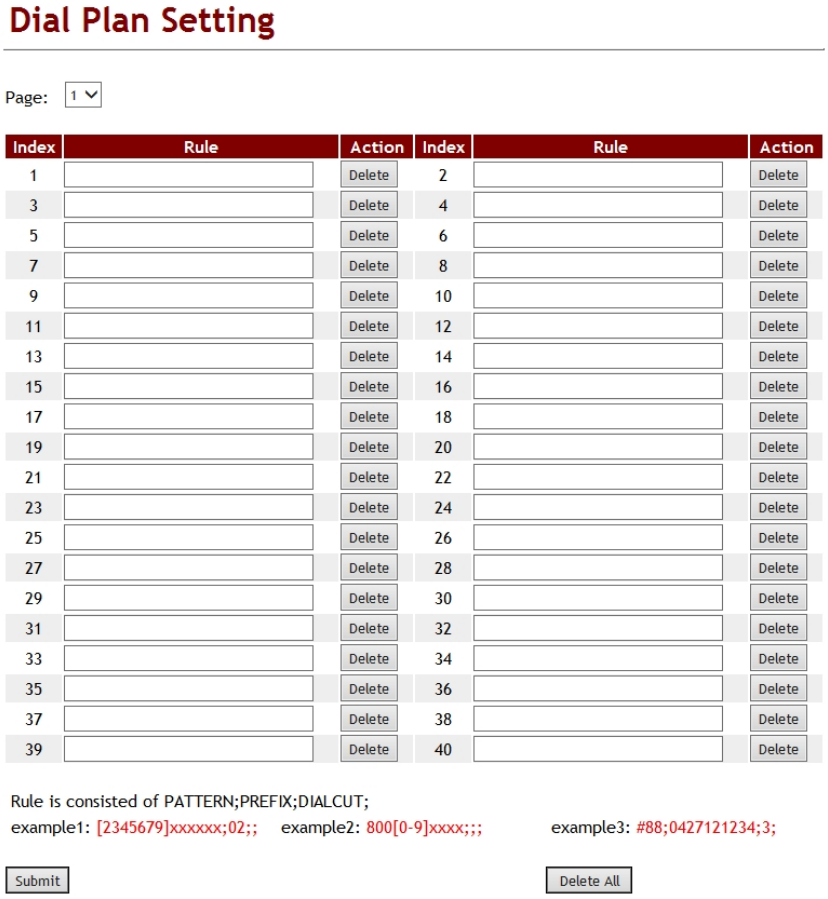
This item provides GSM settings and Dial plan.

5.1 Dial Plan

5.1.1 Function description

Provide advanced Setting: Add number and Drop number or Speed Dial function rules.

5.1.2 Parameter description



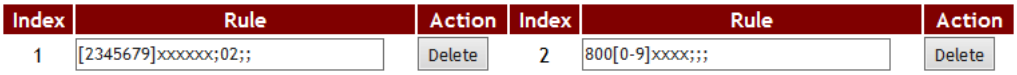
Item	Description
Page	Default is 1. Select pages, Provide drop-down options: 1~5. Total have five pages.
Index	Shows the serial number. There are 200 entries in total from Phone 0~139. One page provides 40 entries.
Rule	Set up Add / Drop code or Speed Dial rules. User can enter numbers or symbols (only support: 0~9, *, #, -, x, [,], ;). Maximum length is 32 bytes. Data format: PATTERN;PREFIX;DIALCUT; The "**;**" is entered as location separator. It is always needed in this rule. PATTERN: Enter Add / Drop code or Speed Dial rules (only support: 0~9, *, #, -, x, [,], ;); maximum length is 20 bytes. When the dial number meet dialing rules field, user doesn't need

Item	Description
	to dial end of dial [#] key. The device will dial the phone number automatically. PREFIX: Enter the phone numbers which you want to Add code, (only support: 0~9, *, #), or keep null. The maximum length is 20 bytes. DIALCUT: Enter the phone numbers which you want to to drop code 『quantity』, (only support: 0~9), or keep null; maximum length is 2 bytes. Example 1: Rule: [2345679]xxxxxx;02;; . Example 2: Rule: 800[0-9]xxxx;;; Example 3: Rule: #88;0427121234;3;
Submit [Button]	Save the Settings.

5.1.3 Operate examples

Example 1: Index: 1, Rule: [2345679]xxxxxx;02;;

Step 1: In [Dial Plan Setting - Advanced] web page, Setup [Use Dial Plan: Advanced, Index: 1, Rule: [2345679]xxxxxx;02;;] (See Figure 1).



(Figure 1)

Instruction 1: When dial number is [2+123456], Meet [Rule] field parameter [2345679]xxxxxx rules, Stop to receive number immediately; Add prefix code [02] before [2+123456] automatically. Actual sending number is [02+2+123456] (See Figure 1).

Instruction 2: When dialing content [3+123456] at the beginning, Meet [Rule] field [2345679]xxxxxx rules, Stop to receive number immediately. Add prefix code [02] before [3+123456]. Actual sending number is [02+3+123456].

Example 2: Index: 2, Rule: 800[0-9]xxxx;;;

Step 1: In [Dial Plan Setting - Advanced] web page, Setup [Index: 2, Rule: 800[0-9]xxxx;;;] (See Figure 1).

Instruction 1: When dial number is [800+1+2345], Meet [Rule] field 800[0-9]xxxx rules, Stop to receive number immediately. The device dials phone number [800+1+2345] automatically.

Instruction 2: When dial number is [800+7+2345], Meet [Rule] field 800[0-9]xxxx rules, Stop to receive number immediately. The device dials phone number [800+7+2345] automatically.

Example 3: Index: 3, Rule: #88;0427121234;3;

Step 1: In [Dial Plan Setting - Advanced] web page, Set up [Index: 3, Rule:

#88;0427121234;3;] (See Figure 2).

(Figure 2)

Instruction 1: When dialing number is [#88], Meet [Rule] field #88 rules, Stop to receive number immediately. Delete 3 numbers (#88). Then add number [0427121234], Actual sending number is [0427121234].

Example 4: Index: 4, Rule: #87;0427121234;2;

Step 1: In [Dial Plan Setting - Advanced] web page, Setup [Index: 4, Rule: #87;0427121234;2;] (See Figure 2).

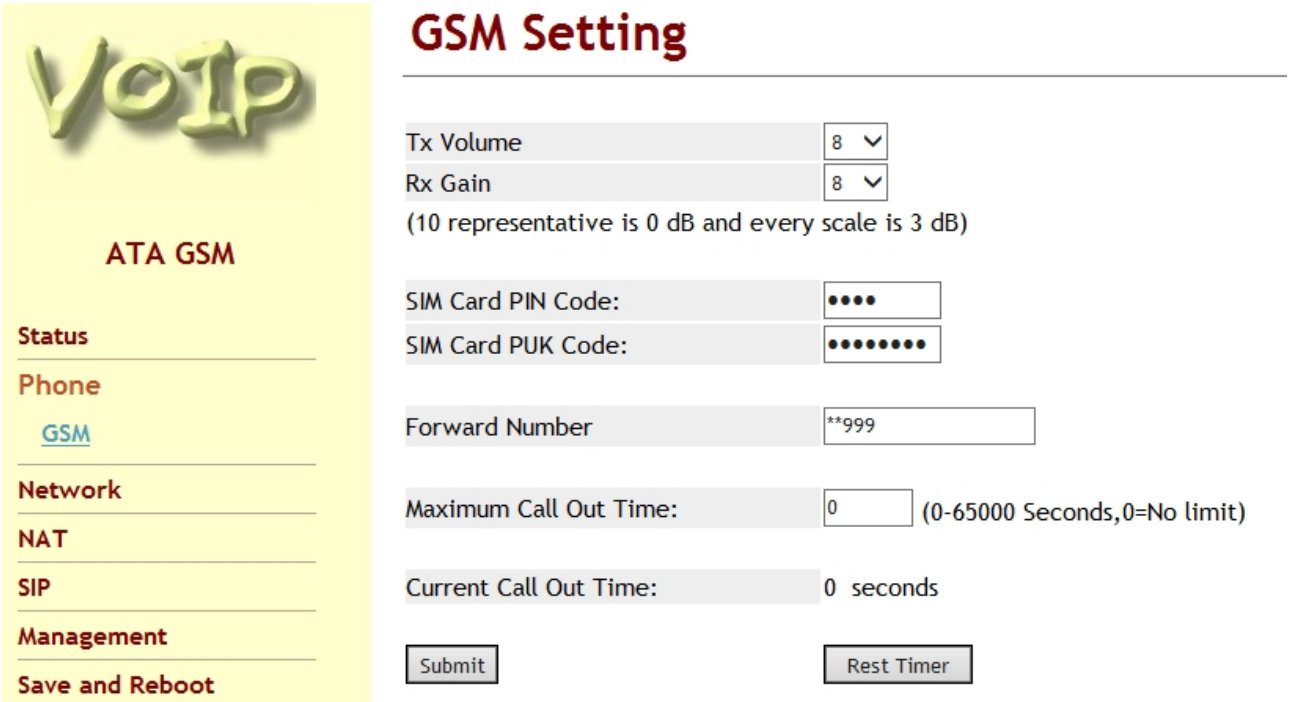
Instruction 1: When dialing number is [#87], meet [Rule] field #87 rules. Stop to receive number immediately. Delete 2 numbers (#8). Then add prefix number [0427121234] before [7]. Actual sending number is [0427121234+7].

5.2 GSM setting

5.2.1 Function

Provide GSM system parameter, Tx/Rx volume and call route forward.

5.2.2 Instructions



Item	Description
Tx Volume	Default is 8. Set up the size of the volume to hear the other side. Provide options: 0 to 10.
Rx Gain	Default is 8. Set up the size of the volume to hear by caller. Provide options: 0 to 10.
SIM Card PIN	Enter SIM card's PIN code. This column can only enter numbers;

Item	Description
Code	maximum length is 8 bytes.
Forward Number	Set up the GSM incoming call forward number. This column can only enter numbers; maximum length is 16 bytes. In P2P mode, please fill in receiver device IP address and port number. For instance, 192.168.1.10:5060 In Proxy mode, please fill in SIP account number for SIP Server or IP-PBX server to transit this call to remote receiver.
Maximum Call Out Time	Default is 0. Shows maximum call out time. Set up outgoing call time limit. The data range 0~6500 seconds. 0=No time Limit.
Current Call Out Time	Shows outgoing call time already used.
Submit [button]	Save the configuration.
Reset Timer [button]	Reset Current Call Out Time data.

5.3 P2P Call Example

Suppose there are one Wellgate M1 (IP: 192.168.1.2) and one ATA172plus (IP: 192.168.1.3) and ATA172plus SIP port is 5060. They are workin in P2P mode to call each other. Here are configuration tips on both devices.

1. WellGate M1 has GSM incoming call to remote port 2 of ATA172plus via P2P call. At GSM M1 gateway Forward Number configure at 192.168.1.3:5062. Since ATA172plus SIP port is 5060 which is used for port1, port 2 uses 5062. If ATA172plus SIP port is 8088, then port 2 SIP port should be 8090. When there is an GSM incoming call at Wellgate M1, it will ring to port 2 of ATA172plus automatically.

2. ATA172plus wants to make a call to GSM network at 0933123456 via WellGate M1. At ATA172plus, go to Phone book of webpage to configure. Put Name field as 301 and Number field as 0933123456@192.168.1.2.

   At WellGate M1 gateway, go to webpage: SIP → Advanced → Only Accept Trustred Certificate → Disable, to allow accepting P2P incoming call.

   Dial 301 from ATA172plus will send this number 0933123456 to GSM network automatically. ATA172plus has 140 records of phone book to be used for P2P call. WellGate M1 only provides one-stage P2P outgoing call to GSM BTS network.

6. Network environment

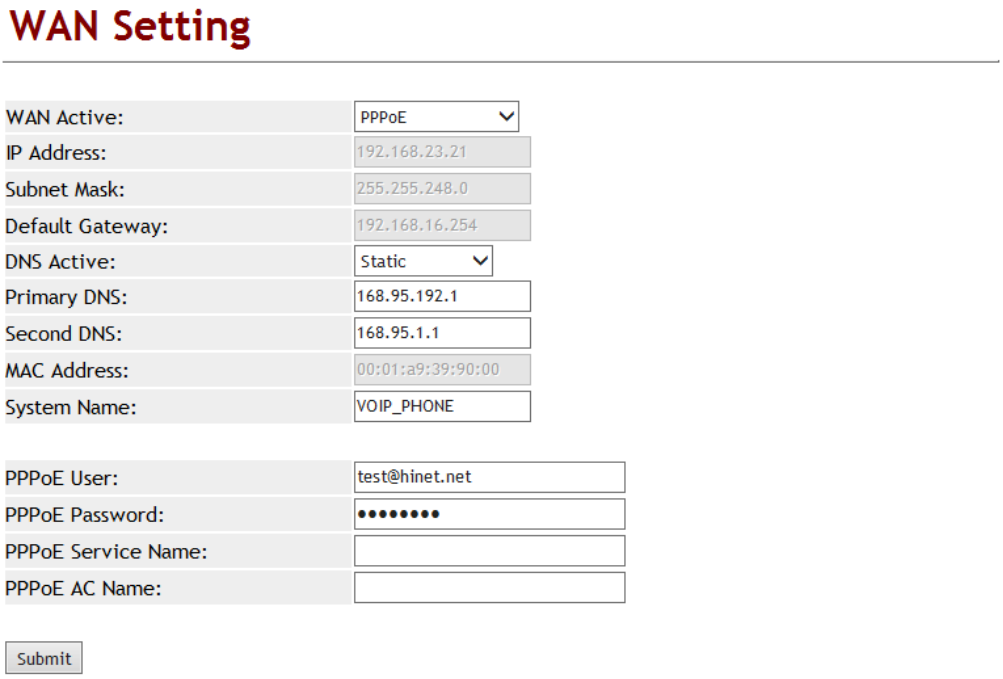
Provide [WAN, DDNS, VLAN, VPN, SNTP] function setting.

6.1 WAN (network setting)

6.1.1 Function

Provide WAN port configuration.

6.1.2 Instruction



Item	Description
Type	Default is DHCP Client and provides Fixed IP, DHCP (gains IP Address automatically) and PPPoE: ADSL Dialing method.
IP Address	Current IP Address list or any IP Address (IPv4 format). If you would like to change IP Address, please set up IP Type as “Fixed IP” first. Maximum length is 15 digits.
Subnet Mask	Current Subnet list. A subnetwork, or subnet, is a logically visible subdivision of an IP network. The format is xxx.xxx.xxx.xxx. Maximum length is 15 digits.
Default Gateway	Current default gateway list. Gateway is a node (a router) on a TCP/IP network that serves as an access point to another network. The format is xxx.xxx.xxx.xxx. Maximum length is 15 digits.
DNS Type	Default is Auto. Define DNS server mode to be Fixed and Auto. Fixed: Manual set DNS server. Auto: Network server provides DNS. It only supports in Type: DHCP Client and PPPoE.
DNS Server1	Default: 168.95.192.1. It can be IP address or Domain Name. Format: xxx.xxx.xxx.xxx. Maximum length is 15 digits.
DNS Server2	Default: 168.95.1.1. It can be IP address or Domain Name. Format: xxx.xxx.xxx.xxx. Maximum length is 15 digits.
MAC ID	Display MAC address information.

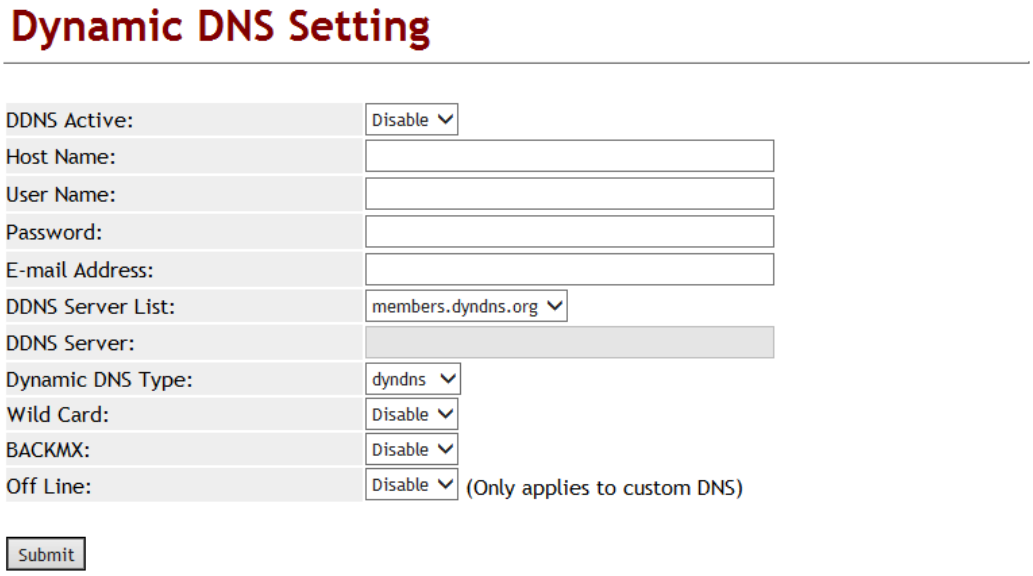
Item	Description
Host Name	Default: product name. Numbers or strings are both acceptable. Length: 15 digits.
PPPoE User Name	Provides user's name of PPPoE Server, it can be numbers or strings. Length is 32 digits.
PPPoE Password	Provides password of PPPoE Server, it can be numbers or strings. Length is 32 digits.
PPPoE Service Name	Define Service Name; It can be IP address or Domain Name. Length: 32 digits. NOTE: This name is provided from ISP. If you don't know it, please don't change anything here.
PPPoE AC Name	Define AC Name; It can be IP address or Domain Name. Length: 32 digits. NOTE: This name is provided from ISP. If you don't know it, please don't set anything here.
Submit [button]	Save the configuration.

6.2 DDNS

6.2.1 Function

Dynamic DNS provides a residential user's Internet gateway that has a variable, often changing IP address with a well known hostname resolvable through standard DNS queries.

6.2.2 Instruction



Item	Description
Active	Default is Disable. The DDNS function will be enabled when you set to Enable.
Host name	Enter Host name which can be IP Address or Domain Name. Format: xxx.xxx.xxx.xxx. Length is 63 digits.
User Name	Enter user's name for registering to DDNS Server.
Password	Enter the password. Maximum length is 63 digits.
E-mail address	Enter E-mail address. Maximum length is 63 digits.
DDNS Server List	Default is Disable; Configure your service provider here. Provide option: User input, members.dyndns.rog and www.dtdns.com mode.
DDNS Server	Enter DDNS Server which can be IP Address or Domain Name. Format: xxx.xxx.xxx.xxx. Maximum length is 63 digits.
Type	Default is dyndns. Provide 3 options: dyndns, statdns and customer mode.
Wild Card	Default is Enable. Provides 3 options: Enable, Disable and Nochg. NOTE: Please make sure your DDNS provider supports this feature when you set it to enable.
BACKMX	Default is Disable; The backup MX function will was activate when you set it to enable. It provides two options: Disable and Enable. NOTE: Please make sure your DDNS provider supports this feature when you set it to enable.
Off Line	Default is Disable. The Off Line function will be activate when

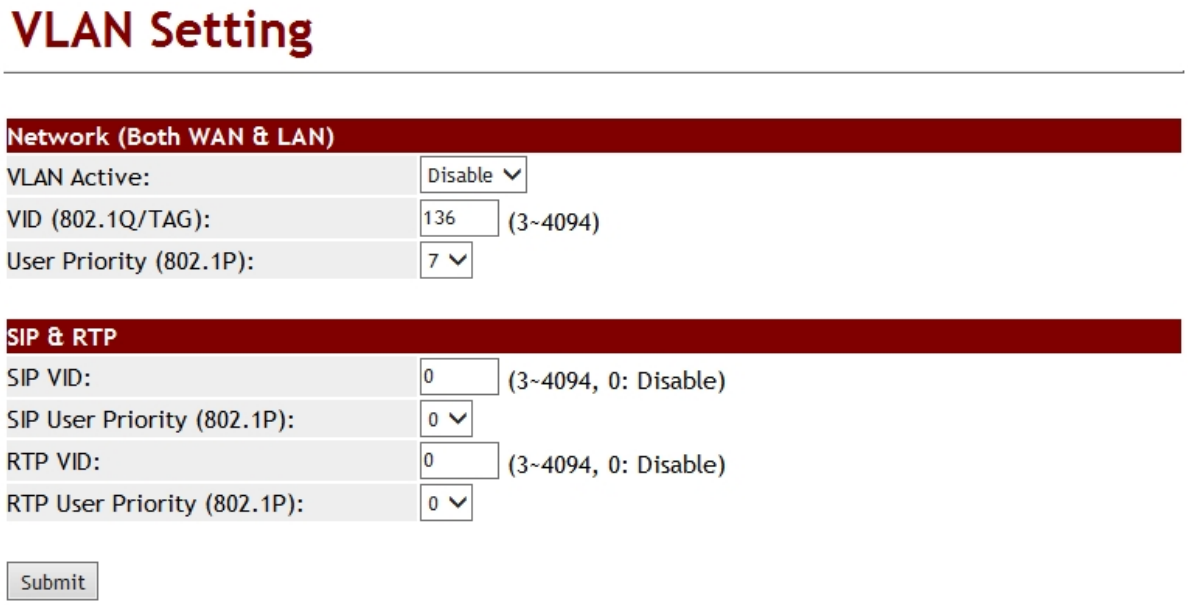
Item	Description
	you set it to enable. It provides two options: Disable and Enable. NOTE: Please make sure your DDNS provider supports this feature when you set it to enable.
Submit [button]	Save the configuration.

6.3 VLAN

6.3.1 Function

Provide Network, SIP and RTP VLAN function. This feature needs to work with VLAN Router.

6.3.2 Instruction



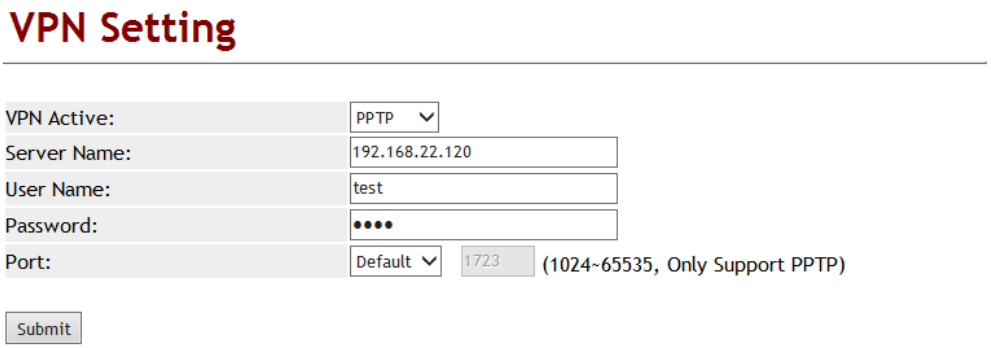
Item	Description
Network (Both WAN & LAN)	Configure VLAN function of both WAN and LAN ports.
VLAN Packets	Default is Disable. ATA supports VLAN function (accept VLAN packets) when you set it to enable.
VID (802.1Q/ TAG)	Default: 136. Provide Virtual LAN ID (VLAN or VID) for VLAN Server. Data range: 3~4097. Maximum length is 4 digits.
User Priority (802.1P)	Default: 0. Set the user's priority. Data range: 0 to 7.
SIP & RTP	Define SIP & RTP VLAN feature.
SIP VID	Default is 0 (disable). This feature is to define SIP VLAN ID. Range is 3~4094. This feature is an independent one which do not need to Enable [VLAN Packets] if you want to enable this feature. Data length is 4 digits.
User Priority (802.1P)	Default is 0 (disable). Define SIP package priority. Range is 0~7.
RTP VID	Default is 0 (disable). Define SIP VLAN ID. Range is 3~4094. This feature is an independent one which do not need to Enable [VLAN Packets] if you want to enable this feature. Data length is 4 digits.
User Priority (802.1P)	Default is 0 (disable); Define RTP package priority. Range: 0~7
Submit [button]	Save the configuration.

6.4 VPN (PPTP/L2TP connection)

6.4.1 Function

Provide [PPTP or L2TP] configuration. **If you want to configure VPN function via webpage, please go to LAN port to do it.**

6.4.2 Instruction



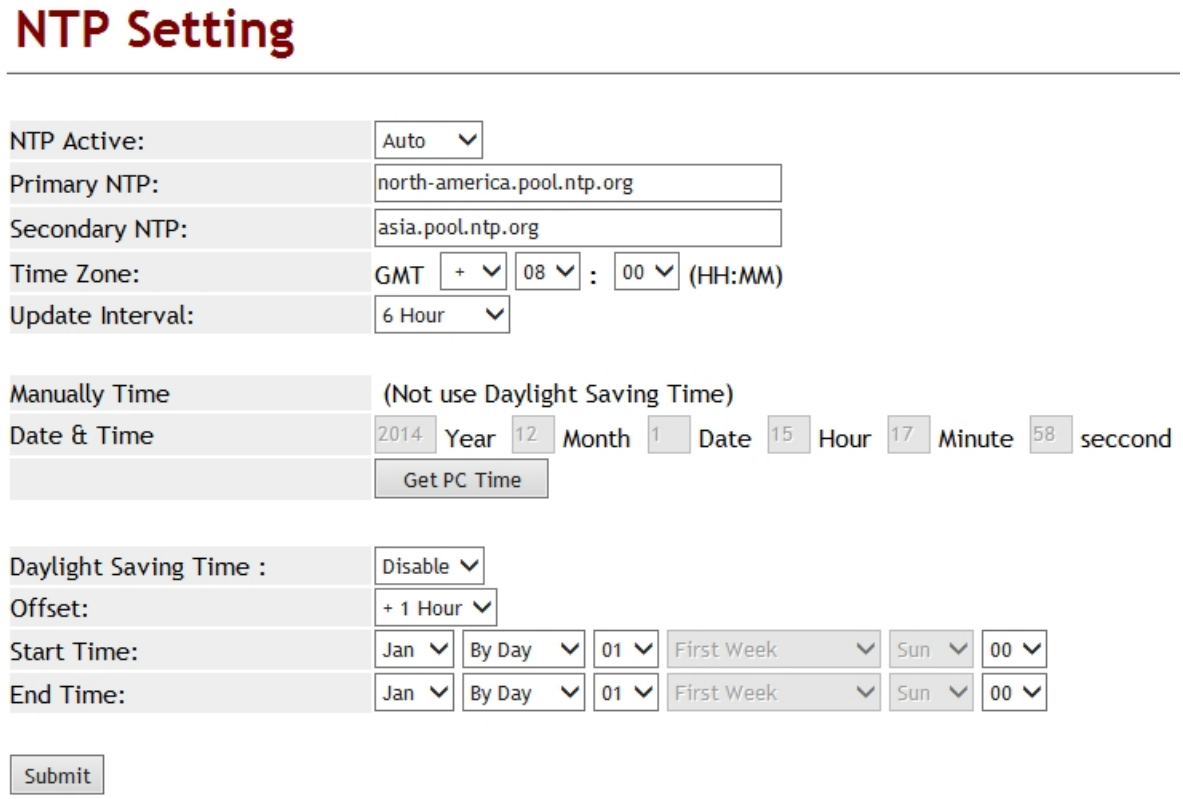
Item	Description
Type	Default is Disable. Provide PPTP/L2TP connection mode.
Server Name	Enter PPTP/L2TP Server information which can be IP Address or Domain Name. Format is : xxx.xxx.xxx.xxx. Maximum length is 63 digits.
User Name	Enter PPTP/L2TP Server user's name or IP address which can be number or strings. Maximum length is 63 digits.
Password	Enter PPTP/L2TP password which can be numbers or strings. Maximum length is 63 digits.
Port Number	Default PPTP Port is 1723. Prodive 2 options: Default, Customer (User define port) and the range is 1024~65535. Only number and length is 5 digits.
Submit [button]	Save the configuration.

6.5 NTP

6.5.1 Function

Provide time synchronization and daylight saving function.

6.5.2 Instruction



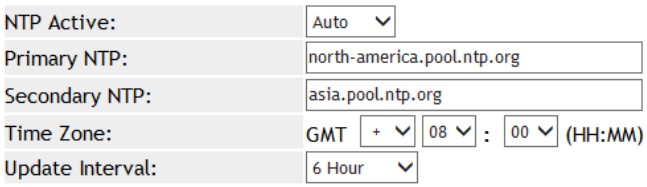
Item	Description
Active	Default is Enable. This feature is to Enable/Disable Time Sync feature. When it was set to Disable, you may configure Time manually.
Primary Server	Default is north-america.pool.ntp.org to be Primary time sync server. It can be IP address or Domain Name. The format is xxx.xxx.xxx.xxx. Maximum length is 63 digits.
Secondary Server	Default is asia.pool.ntp.org to be Secondary time sync server. It can be IP address or Domain name. The format is xxx.xxx.xxx.xxx. Maximum length is 63 digits.
Time Zone	Deafult is GMT + 08:00 (hh:mm). Provide option is : +/-, 00~13(hour) 00, 15, 30, 45 (minute).
Synchornize Time	Default is 24 Hour.To configure the interval time for Time Sync. The option are : 1 min., 5 min., 30 min., 1 hour, 3 hour, 6 hour, 12 hour, 24 hour.
Daylight Saving Time	Default is Disable. Define the Daylight Saving time. When you set to Enable, time will be adjusted by the Daylight Saving parameter.
DST Offset	Default is +1 Hour. Adjust the Daylight Saving time. Option: -2 hour, -1 hour, +1 hour, +2 hour.
DST Start Date	Configure the Daylight Saving start time. Option: Day of Month, Week of Month.

Item	Description
DST End Date	Configure the Daylight Saving start time Option: Day of Month, Week of Month .
Submit [button]	Save the configuration.

6.5.3 Operate Instruction

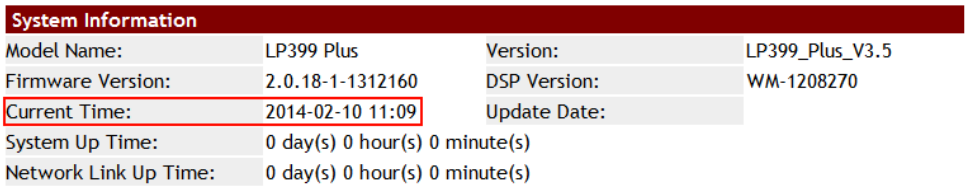
Example 1: NTP Setting

Step 1: In [NTP Setting] web page, Setup [NTP Active: Auto, Primary NTP: north-america.pool.ntp.org, Secondsondary NTP: asia.pool.ntp.org, Time Zone: GMT+ 08:00, Update Interval: 6 Hour] (See Figure 1).



(Figure 1)

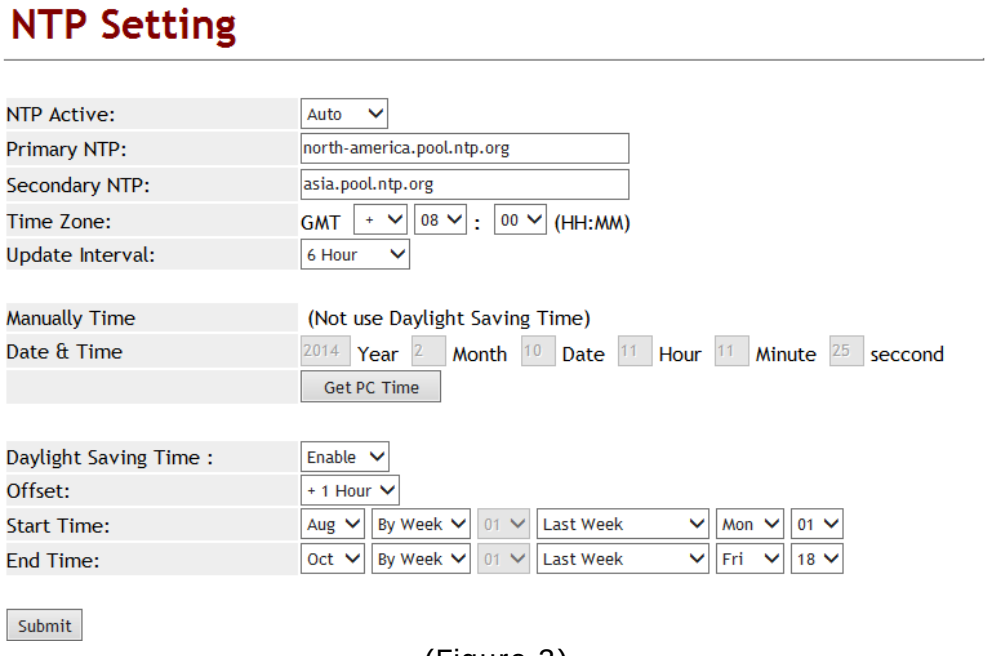
Step 2: In [System Status] web page, View the [Current Time] field, The field show time information now (See Figure 2).



(Figure 2)

Example 2: DST Setting (Daylight Saving Time)

Step 1: In [NTP Setting] web page, Setup [NTP Active: Auto, Primary NTP: north-america.pool.ntp.org, Secondsondary NTP: asia.pool.ntp.org, Time Zone: GMT+ 08:00, Update Interval: 6 Hour, Daylight Saving Time: Enable, OffSet up: +1 Hour, Start Time: Aug, By Week, Last Week, Mon, 01, End Time: Oct, By Week, Last Week, Fri, 18] (See Figure 3).

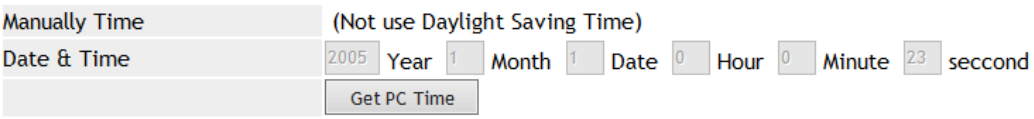


(Figure 3)

Step 2: In [System Status] web page, View the [Current Time] field, The field show [Daylight Saving Time] time information.

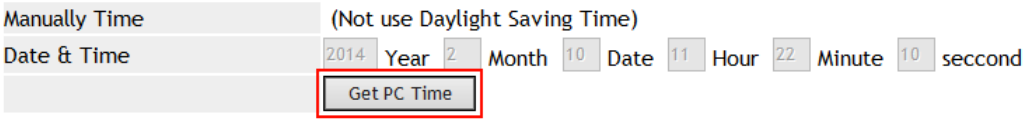
Example 3: Manually Setup NTP

Step 1: In [NTP Setting] web page, Setup [NTP Active: Manual] , Press [Get PC Time] button to get personal computer's date and time (For example : Date & Time: 2005 Year, 1 Month, 1 Date, 0 Hour, 0 Min, 23 secondsond) (See Figure4).



(Figure 4)

Step 2: In [System Status] web page, View the [Current Time] field, The field show [Manually Time] time information (See Figure 5).



(Figure 5)

7. NAT

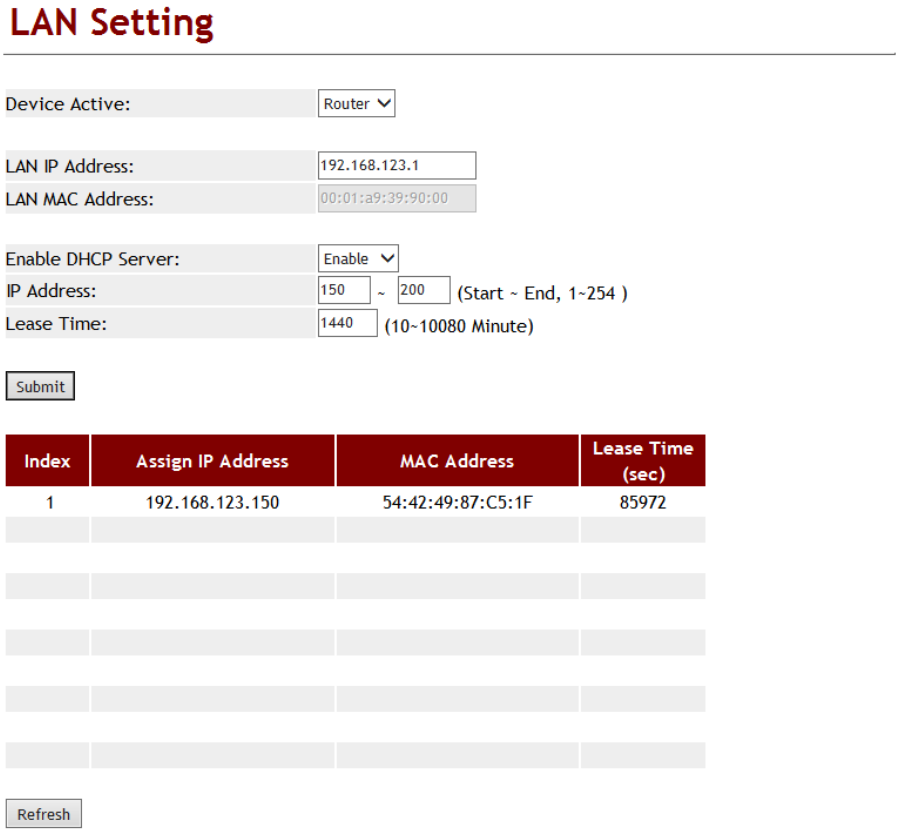
Provide [LAN, DMZ and MAC Clone, Virutal Server] function.

7.1 LAN

7.1.1 Function

Provide LAN port configuration setting including DHCP server function.

7.1.2 Instruction



Item	Explanation
Device Active	Default: NAT. Setup the routing function of LAN Port. Provide options: Bridge, NAT. Bridge: When you Setup Bridge, [WAN & LAN] Port are all in the same IP domain, just like in the same network switch. NAT: When you Setup NAT, [WAN & LAN] Port are in the different IP domain. LAN Port work as DHCP server when you Enable DHCP Server Active function.
LAN IP Address	**Default: 192.168.123.1.** The type is xxx.xxx.xxx.xxx of 15 bytes.
LAN MAC Address	Show LAN MAD ID address.
Enable DHCP Server	Default: Enable; When you Disable this function, LAN Port will not be a DHCP Server. Provide options: Enable, Disable.
IP Address	Default: 150~200; Setup the IP address range of DHCP Server. This column can only be numbers; maximum length is 3 bytes with the range of 1~254.

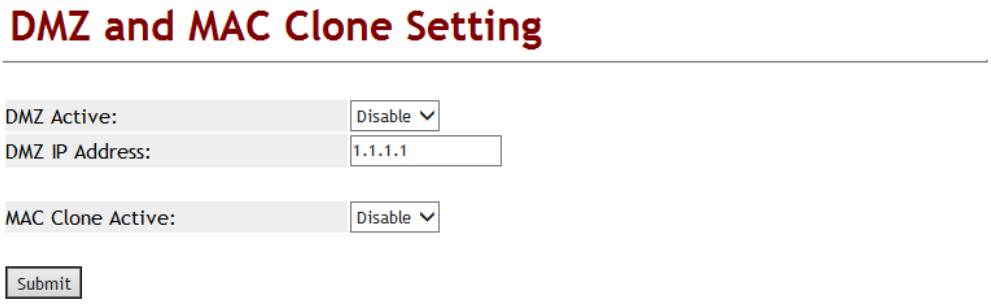
Lease Time	Default is 1440 (min), IP address rented deadline. Only use number, Data setting range is 10~17820, maximum length is 5 bytes.
Submit [Button]	Save the Settings.
Index	Shows the serial number.
Assign IP Address	ATA's DHCP server appoint IP address.
MAC Address	Connect ATA LAN port device's MAC address.
Lease Time(sec)	LAN port device connection time.
Refresh [Button]	Reload DHCP device status.

7.2 DMZ & MAC Clone

7.2.1 Function

Provide DMZ and MAC Clone configuration.

7.2.2 Instruction



Item	Description
DMZ Type	Default is Disable. When set to Enable, all network packages will be sent to the IP address which was defined from [Assigned IP Address].
Assigned IP Address	Default is 192.168.123.150. IP format is : xxx.xxx.xxx.xxx. Data length is 15 digits.
MAC Clone Type	Default is Disable. When it was set to Enable, ATA will get your PC computer's MAC address. Option: Disable, Enable. NOTE: 1. When use MAC Clone function, ATA must set ''LAN Mode" to NAT mode and enable DHCP server. 2. You have to login ATA to configure via LAN port to set the MAC Clone function.
Submit [button]	Save the configuration.

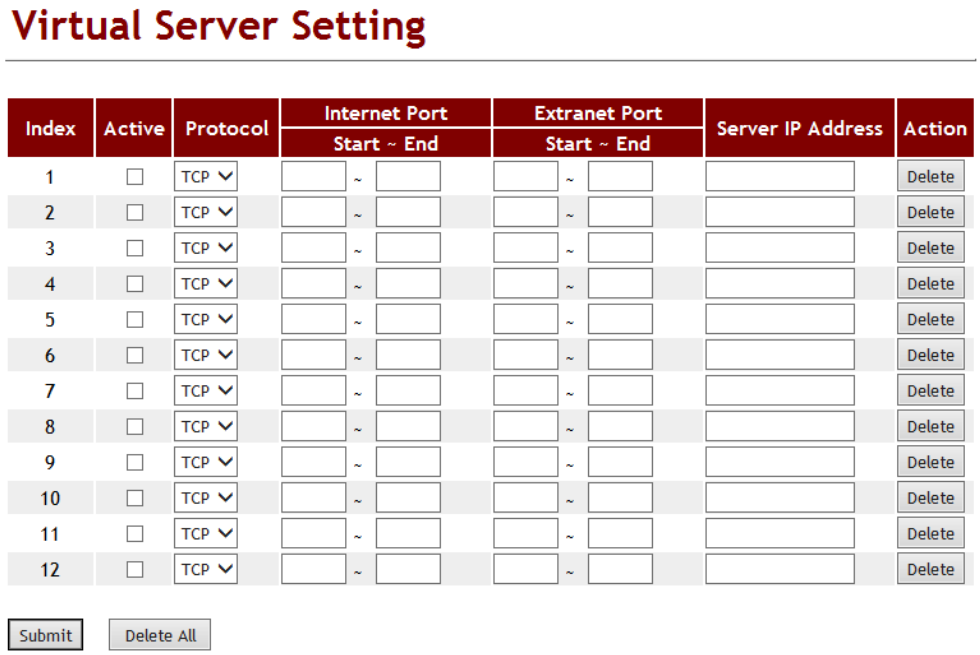
NOTE :
If you want to resume your original MAC address, please use "Restore Default Setting" command at Webpage configuration.

7.3 Virtual Server

7.3.1 Function

Provide 12 sets of Virtual Server.

7.3.2 Instruction



Item	Description
Index	Index number to support 12 sets configuration.
Enable	Default is Disable to all sets. When setting Enable, this function will be started.
Protocol	Default is TCP. Protocol option is : TCP or UDP.
Internet Port	Define the intranet port. Range is 1~65533. Here can define a range of ports or fixed port.
Extranet Port	Define the extranet port. Range is 1~65533. Here can define a range of ports or fixed port.
Server IP	Define internet server IP address which can only be IP address and the format is xxx.xxx.xxx.xxx. The address range is 15 digits.
Action	Click the delete button to clear the setting.
Submit [button]	Save the configuration.
Delete All [button]	Clear all configuration in virtual server setting web page.

NOTE :
When you define the Internet & Extranet Ports, please avoid from using ATA default ports. For example: 5060, 9999, 20000.

8. SIP Setting

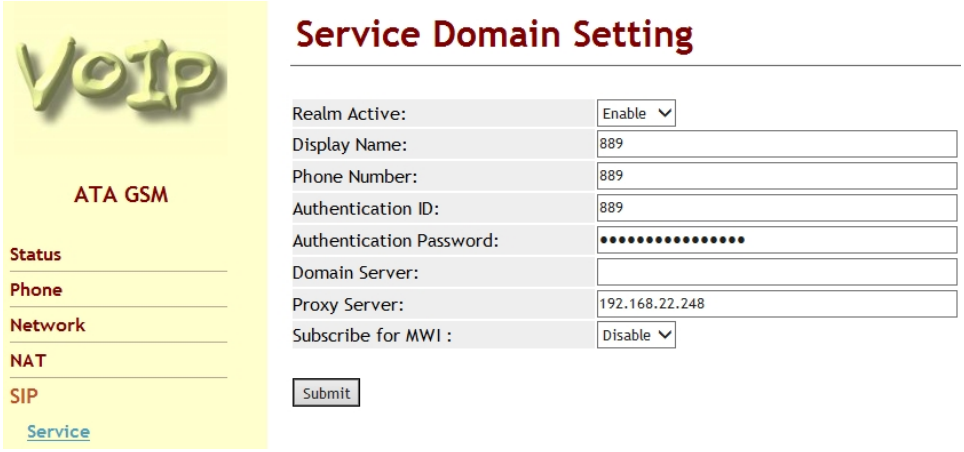
Provide Service, Code, Advanced and STUN function.

8.1 Service (SIP register setting)

8.1.1 Function

Provide SIP server's register accounts.

8.1.2 Instruction



(Figure 1)

Item	Description
Realm Active	Default: Disable. When you Enable this function, this device work at SIP Proxy mode and start to register at SIP Register Server or IP-PBX server. In other word, this device was enabled at SIP proxy mode. Provide options: Disable, Enable.
Display Name	This column can enter numbers and strings (support: 0~9, a~z, @, _, -, *, #, ., +, :); maximum length is 31 bytes.
Phone Number	Set up assigned Phone Number from SIP Register Server or IP-PBX server. This column can be numbers and strings (support: 0~9, a~z, @, _, -, *, #, ., +, :); maximum length is 31 bytes.
Authentication ID	Set up the SIP Register ID. This column can be numbers and strings(support: 0~9, a~z, @, _, -, *, #, ., +, :); maximum length is 47 bytes.
Authentication Password	Setup SIP Registration Password. This column can be numbers and strings; maximum length is 31 bytes.
Domain Server	Setup Domain Server. This column can enter IP or Domain Name with the format of xxx.xxx.xxx.xxx; maximum length is 63 bytes. If the Domain Server has Port Number, please add it at the end of Domain Name, for instance: nat.voiptalk.org:5065.
Proxy Server	Set up Proxy Server or IP-PBX Server. This column can enter IP or Domain Name with the format of xxx.xxx.xxx.xxx; maximum length is 63 bytes. If the Domain Server has Port Number, please add it at the end of Domain Name, Example: nat.voiptalk.org:5065.

Item	Description
Subscribe for MWI	Default: Disable. When Enable this function, system will send [Subscribe of MVI] message. Please confirm this function supported by your SIP Register Server or IP-PBX server.
Submit [Button]	Save the Settings.

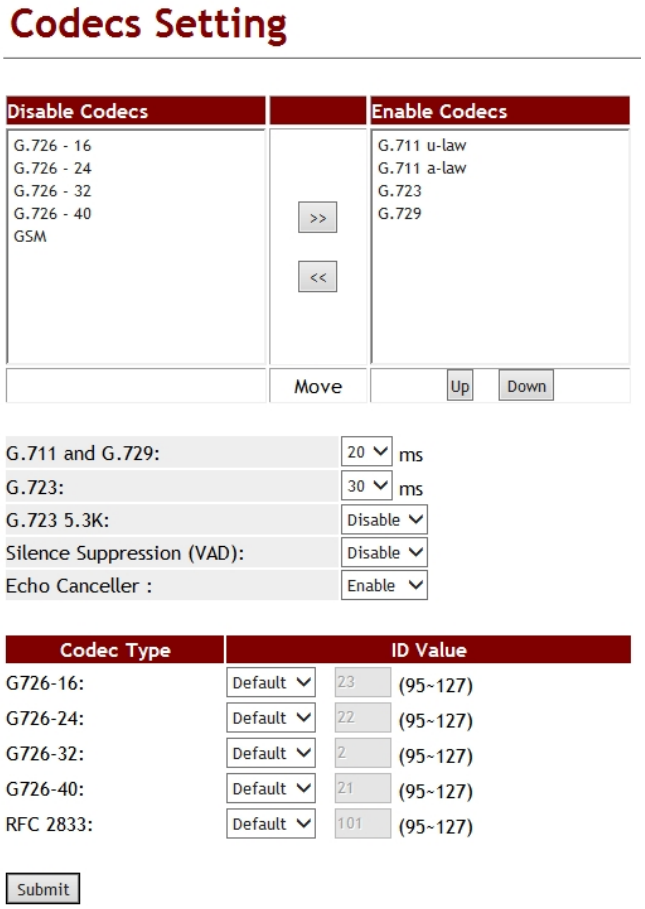
8.2 Codec

8.2.1 Function

Provide Voice Codec priority, RTP payload type and Codec ID setting.

8.2.2 Instruction

Figure 1: G.723 voice codec.



Item	Description
Disabled Codecs	Default: G.726.16, G.726.24, G.726.32, G.726.40, GSM. Disable these voice Codecs.
>> <<	>>: Move to Enable Codec area. <<: Move to Disable Codec area.
Enabled Codec	Default: G.729, G.711 u-law, G.711 a-law, G.723. Provide using Codec items. The priority is according to the order of the screen. The default

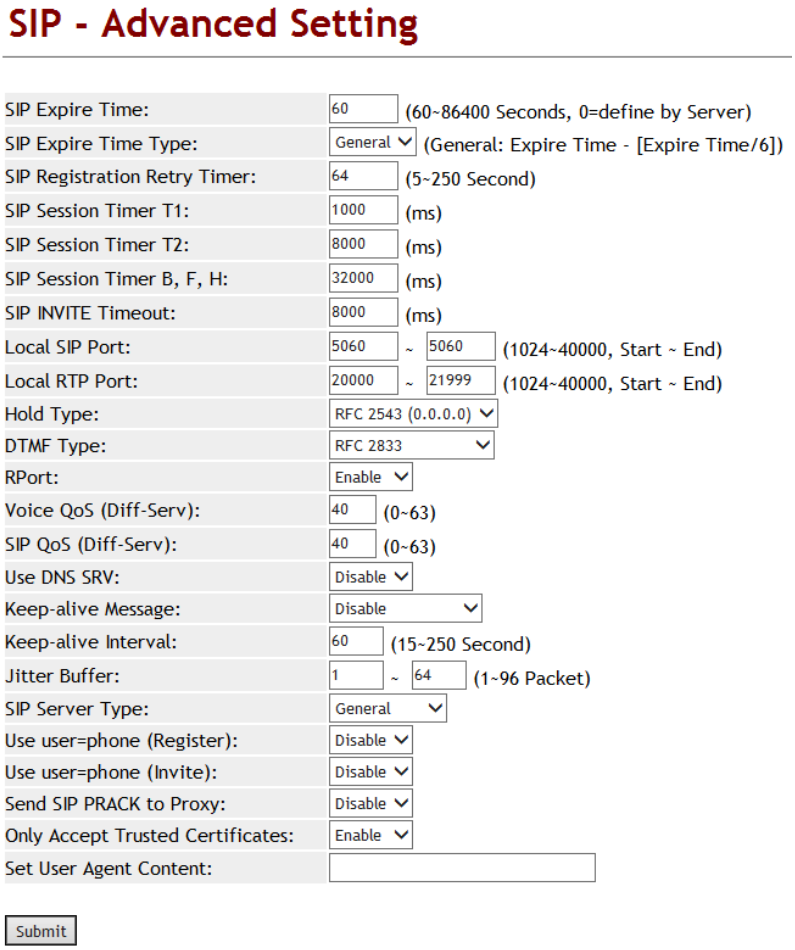
Item	Description
	Setting of the first priority is G.729.
Move	>>: Select [Disable Codecs] item, press [>>] button, can move to Enable Codec area. <<: Select [Enable Codecs] item, press [<<] button, can move to Disable Codec area.
Up [Button]	Select [Endble Codec] item, press [Up] button, can move up the codec priority.
Down [Button]	Select [Endble Codec] item, press [Down] button, can move down the codec priority.
G.711 and G.729	Default: 20 ms; Set up the RTP Package Length of G.711 & G.729. Provide options: 10, 20, 30, 40, 50, 60, 70, 80, 90(ms).
Silence Suppression (VAD)	Default: Disable; Set up Silence Suppression (VAD). Provide options: Disable, Enable. When VAD detects that the users are in talking , Codec will send out messages to network. Theoretically, there is only one user talking and another one is listening in the same time, the listening one don't send out any voice, so VAD will send the messages of the talking one to network, therefore, VAD can lower amount of message about 30%.
Echo Canceller	Default: Disable; Setup Echo Cancel. Provide options: Disable, Enable.
Codec Type	Setup the information of Codec ID.
G726-16	Default: 23; When you Setup Custom, you can modify the Codec ID Value. This column can only be numbers; maximum length is 3 bytes with the range of 95~127. Provide options: Default, Custom. *: Please select Custom, before you modify Codec ID Value.
G726-24	Default: 22; This column can only be numbers; maximum length is 3 bytes with the range of 95~127. Provide options: Default, Custom.
G726-32	Default: 2; This column can only be numbers; maximum length is 3 bytes with the range of 95~127. Provide options: Default, Custom.
G726-40	Default is 21; This column can only be numbers; maximum length is 3 bytes with the range of 95~127. Provide options: Default, Custom.
RFC 2833	Default is 101; This column can only be numbers; maximum length is 3 bytes with the range of 95~127. Provide options: Default, Custom.
Submit [Button]	Save the Settings.

8.3 Advanced

8.3.1 Function

Provide [SIP Expire Time, SIP/RTP Port, QoS, Register SIP Expire Time, Use DNS SRV, DTMF, User=Phone, PRACK] Function.

8.3.2 Instruction


SIP - Advanced Setting
SIP Expire Time: 60 (60~86400 Seconds, 0=define by Server)
SIP Expire Time Type: General (General: Expire Time - [Expire Time/6])
SIP Registration Retry Timer: 64 (5~250 Second)
SIP Session Timer T1: 1000 (ms)
SIP Session Timer T2: 8000 (ms)
SIP Session Timer B, F, H: 32000 (ms)
SIP INVITE Timeout: 8000 (ms)
Local SIP Port: 5060 ~ 5060 (1024~40000, Start ~ End)
Local RTP Port: 20000 ~ 21999 (1024~40000, Start ~ End)
Hold Type: RFC 2543 (0.0.0.0)
DTMF Type: RFC 2833
RPort: Enable
Voice QoS (Diff-Serv): 40 (0~63)
SIP QoS (Diff-Serv): 40 (0~63)
Use DNS SRV: Disable
Keep-alive Message: Disable
Keep-alive Interval: 60 (15~250 Second)
Jitter Buffer: 1 ~ 64 (1~96 Packet)
SIP Server Type: General
Use user=phone (Register): Disable
Use user=phone (Invite): Disable
Send SIP PRACK to Proxy: Disable
Only Accept Trusted Certificates: Enable
Set User Agent Content:
Submit

(figure1)

Item	Description
SIP Expire Time	Default is 60; When this function is Set up to 0, the SIP Expire Time is according to the default value of Server. This column can only be numbers; maximum length is 5 bytes with the range of 60~86400 (seconds).
SIP Expire Time Type	Default: General. Provide options: General, 1/2, 2/3, 3/4, 4/5, 5/6, 6/7, 7/8, 8/9, 9/10. *This function must be supported by SIP Server or IP-PBX Server. The count formula of SIP Expire Time: General: SIP Expire Time-[(SIP Expire Time/30)*6] as SIP Expire Time > 60 seconds, if SIP Expire Time < 60 seconds, the SIP Expire Time subtract 5 seconds uniformly.

Item	Description
	1/2: SIP Expire Time * 1/2. 2/3: SIP Expire Time * 2/3. 3/4: SIP Expire Time * 3/4. 4/5: SIP Expire Time * 4/5. 5/6: SIP Expire Time * 5/6. 6/7: SIP Expire Time * 6/7. 7/8: SIP Expire Time * 7/8. 8/9: SIP Expire Time * 8/9. 9/10: SIP Expire Time * 9/10.
SIP Registration Retry Timer	Default: 64 seconds. Set up the period of registering SIP Server again if LP399 fails to register SIP Server or IP-PBX server. This column can only enter numbers; maximum length is 4 bytes with the range of 5~3600 (seconds).
SIP Session Timer T1	Default: 1000 ms; Set up round-trip time (RTP) estimate. This column can only enter numbers; maximum length is 4 bytes with the range of 500~2000. *This function must be supported by Server.
SIP Session Timer T2	Default: 8000 ms. Set up the maximum retransmit interval for non-INVITE requests and INVITE responses. This column can only enter numbers; maximum length is 5 bytes with the range of 4000~16000. *This function must be supported by Server.
SIP Session Timer B, F, H	Default: 32000 ms. Set up the maximum retransmit interval for non-INVITE requests and INVITE responses. This column can only enter numbers; maximum length is 6 bytes with the range of 8000~128000. B: 64 * SIP T1; INVITE transaction timeout timer。 F: 64 * SIP T1; non-INVITE transaction timeout timer。 H: 64 * SIP T1, Wait time for ACK receipt. *This function must be supported by Server. For example, if T1 is 500 ms, T2 is 4 seconds and B,F,H is 32 seconds, then non-INVITE retransmissions occur at intervals of 500 ms, 1s, 2s, 4s, 4s, 4s, 4s, 4s, 4s, 4s. This means that retransmissions occur with an exponentially increasing interval that caps at T2. In this particular scenario, there are 10 retransmissions which is a total of 11 requests from UAC.
SIP INVITE Timeout	Default: 30000 ms; Set up SIP Invite, If how long do not respond, enter the failed state. This column can only enter numbers; maximum length is 5 bytes with the range of 8000~64000.
Local SIP Port	Default: 5060~5060. Set up the Start and End SIP Port Range of phone 1.

Item	Description
	This column can only enter numbers; maximum length is 5 bytes with the range of 1024~40000.。 If you want to Set up a fixed port, please Set up the same value of Start and End Port. If you want to Set up a range, the left column is Start Port, the right Port is End Port.
Local RTP Port	Default: 20000~21999. Set up the Start and End RTP Port Range of phone 1. This column can only enter numbers; maximum length is 5 bytes with the range of 1024~40000. If you want to Set up a fixed port, please Set up the same value of Start and End Port. If you want to Set up a range, the left column is Start Port, the right Port is End Port.
Hold Type	Default: RFC 2543 (0.0.0.0). Set up Hold (define by RFC). When this function is on, the information of [Connection Information (c): IN IP4 xxx.xxx.xxx.xxx] will change IP to the device of executing the function. Provide options: RFC2543 (0.0.0.0), Type1 (Send only), Type2 (inactvie).
DTMF Type	Default: RFC 2833. InBand: When you enter key information, the [Ethereal] will not show it. RFC2833: When you enter key information, the [Ethereal] will show [RTP Event]. SIP Info: When you enter key information, the [Ethereal] will show [Request: Info]. Provide options: InBand, RFC2833, SIP Info. RFC2833 + Inband: When you enter key information, LP399 sends Inband message and [RTP Event] message. SIP Info + Inband: When you enter key information, LP399 sends Inband message and [Request: Info] message.
RPort	Default: Disable; Set up RPort function. When this function is on, the [Rport] message will add in [Message Header]. Provide options: Disable, Enable. *This function must be supported by Server.
Voice QoS (Diff-Serv)	Default: 40; This column can only enter numbers; maximum length is 2 bytes with the range of 0~63.
SIP QoS (Diff-Serv)	Default: 40; This column can only enter numbers; maximum length is 2 bytes with the range of 0~63.
Use DNS SRV	Default: Disable. When this function is on, the package will show [DNS, Standard query SRV_sip_upd.xxx.xxx.xxx]. Provide options: Disable, Enable.

Item	Description
	*This function must be supported by Server.
Keep-alive Message	Default: Disable; When this function is on and system is in NAT, LP399 will send a package to Server periodically according to [Send Keep Alives Packet]. Provide options: Disable, Send UDP, Send SIP Option. Send UDP: Use UDP format to send; For example: UDP, Source Port: sip Destination Port: xxxx. Send SIP Optoin: Use SIP Option format to send; For example: SIP, Request-Line: OPTIONS sip:xxx.xxx.xxx.xxx;user=phone SIP/2.0.
Keep-alive Interval	Default: 60; This column can only enter numbers; maximum length is 3 bytes with the range of 15~250.
Jitter Buffer	Default: 1~64; Set up Jitter Buffer. In VoIP system, the time of every voice package arrives destination will affect by Network Delay. Therefore, Jitter Buffer is used in destination to modify the order of packages and adjust the time of Voice Playout Delay, this function will raise the voice quality. This column can only enter numbers; maximum length is 3 bytes with the range 0~32.
SIP Server Type	Default: General. Set up the type of SIP Server. In accordance with market available different SIP Servers or IP-PBX server, WellGate M1 will adjust its configuration to be compatible with these SIP Server. Provide options: General, Asterisk, BroadWorks, Nortel, Xener, Vodtel, SKTelink. * Please make sure which model of SIP Server or IP-PBX server for Wellgate M1 to work with in order to select suitable SIP Server Type.
Use user=phone (Register)	Default: Disable; When this function is on, the Register Header will add ”user=phone” message in Register packages. Provide options: Disable, Enable. *This function must be supported from SIP Server.
Use user=phone (Invite)	Default: Disable; When this function is on, the Invite Header will add ”user=phone” message in Invite packages. Provide options: Disable, Enable. *This function must be supported from SIP Server.
Send SIP PRACK of Proxy	Default: Disable; When this function is on, there will add “PRACK Header” messages. Provide options: Disable, Enable. *This function must be supported from SIP Server.
Only Accept Trusted Certificates	Default: Enable. Set up IP incoming call if it comes from trusted SIP Server or IP-PBX or not.

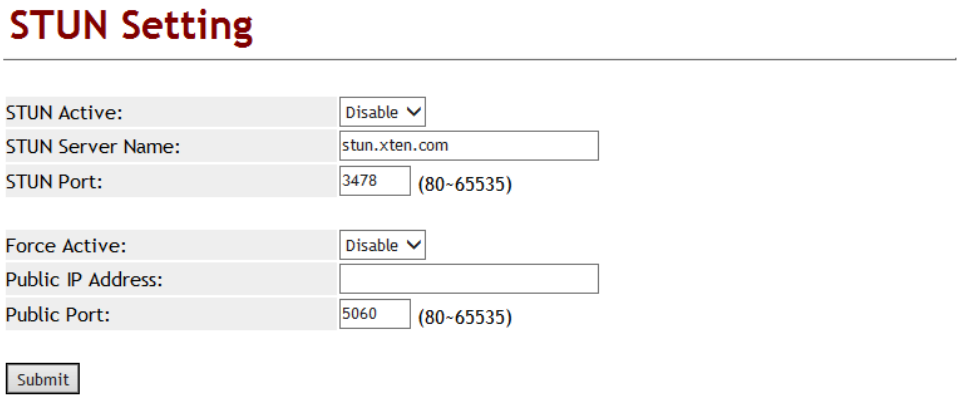
Item	Description
	When Enable, this device only accept IP incoming call from trusted SIP Server or IP-PBX. It will reject P2P call. When Disable, this device accept P2P call. And accept any IP incoming call even from not trusted SIP Server or IP-PBX. Provide drop-down options: Disable, Enable.
Set up User Agent Content	Default: (null); When send SIP packets, the packets header "User-Agent" message will join this word. This column can enter numbers and strings (support: 0~9, a~z, @, _, -, *, #, ., +, :, () [,] and blank); maximum length is 46 bytes.
Submit [Button]	Save the Settings.

8.4 STUN (STUN & Froce configuration)

8.4.1 Function

Provide STUN and Force setting.

8.4.2 Instruction



Item	Description
STUN Active	Default is Disable. Option: Disable, Enable.
STUN Server Name	Default is stun.xten.com; Define STUN server IP which can be IP address or Domain Name. The format is xxx.xxx.xxx.xxx. Data length is 63 digits.
STUN Port Number	Default port is 3478; Define STUN port. Range: 80~65535. Data length is 5 digits.
Force Active	Default is Disable. When this feature was enabled, ATA change SIP messge to IP. Option: Disable, Enable.
Public IP Address	Define Router external IP address. Data length is 63 digits. The format is xxx.xxx.xxx.xxx.
Public Port Number	Default port is 3478. Define Router external port number. Range: 80~65535.
Submit [button]	Save the configuration.

9. Management (Advanced configuration)

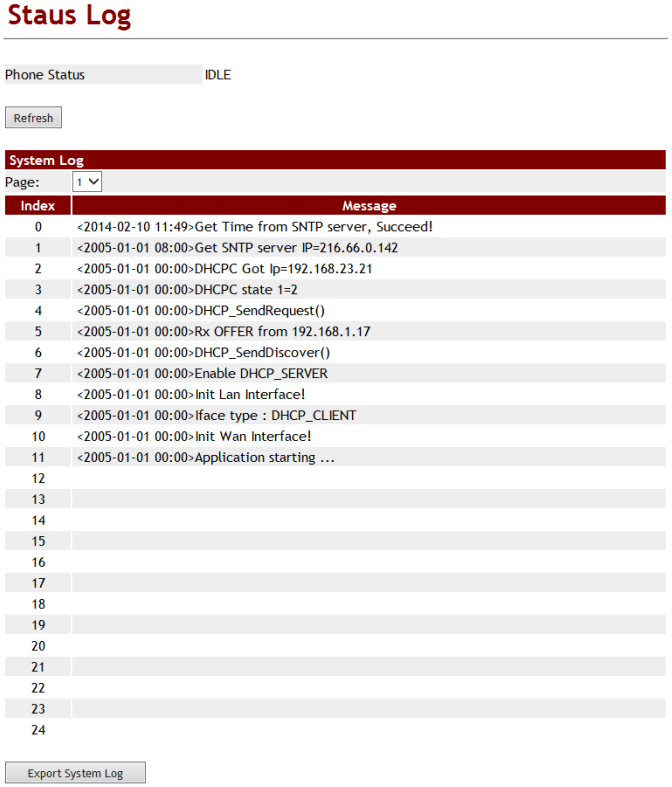
Provide [Status Log, Auto Config, Auto Update, New Firmware, Advanced, Passowrd, Tones, Default, Language] functions.

9.1 Status Log

9.1.1 Function

Provide system log.

9.1.2 Instruction



Item	Discription
Phone Status	Show the Phone user status now; The status has: IDLE, Off-Hook. IDLE: Ready Off Hook: in use.
Refresh [Button]	Refresh the Phone status.
Status Log	System work status message.
Page	Default: 1 (Page 1), Select page. Provide drop-down options:1~xx; The page increases to next one in accordance with the amount of data to increase automatically.
Index	Show index number.
Message	Show the information of the system. Example: <2014-02-10 11:49> Get Time from SNTP server, Succeed! <2014-02-10 11:49>: Show the time of message. Get Time from SNTP server, Succeed! : Shows the content of message.
Export System	Save [Stauts Log] data to log file; System default file name is

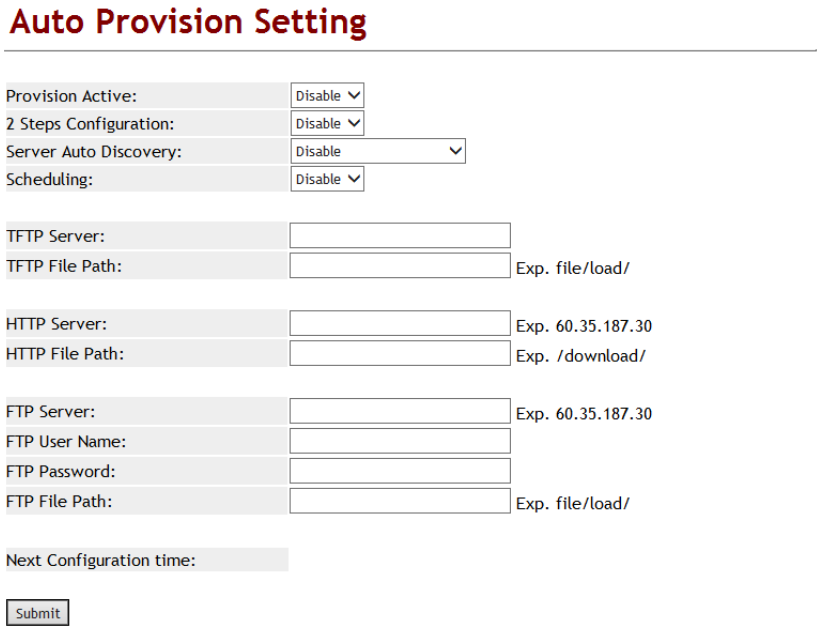
Item	Discription
Log [Button]	Syslog.log.

9.2 Auto Configuration

9.2.1 Function

Provide 3 kinds of provision methods. (TFTP, FTP and HTTP)

9.2.2 Instruction



Item	Description
Provision Active	Default: Disable. When this function is on, this device will download the MACID.dat from the designated provision Server. Provide options: Disable, TFTP, FTP and HTTP.
2 Steps Configuration	Default: Disable. Set up 2 Steps configuration, get the common settings first, then get the SIP accounts and passwords secondly. Provide options: Disable, Enable. *This function must be supported from SIP Server.
Server Auto Discovery	Default: Disable. DHCP TFTP Option 66 (TFTP): DHCP Server will offer the Option 66 Server IP address into the column of system [TFTP Server] when it assigns IP. Broadcasting: Discovering the Server by broadcasting, the Server will send the information of Type and Server to LP399, it will fill in these information to the corresponding columns. Provide options: Disable, DHCP TFTP Option 66 (TFTP), Broadcasting. *This function must be supported by Server.
Scheduling	Default: Disable; Execute the Configuration regularly. When this function is on, system will check the Configuration Server by [Next Config Time]. Provide options: Disable, Enable. Note: The time parameter use [Auto Update Setting] web page's [Scheduling Time & Date].
TFTP Server	This column can only enter IP with the format of xxx.xxx.xxx.xxx; maximum length is 15 bytes.
TFTP File Path	This column can enter numbers or strings; maximum length is

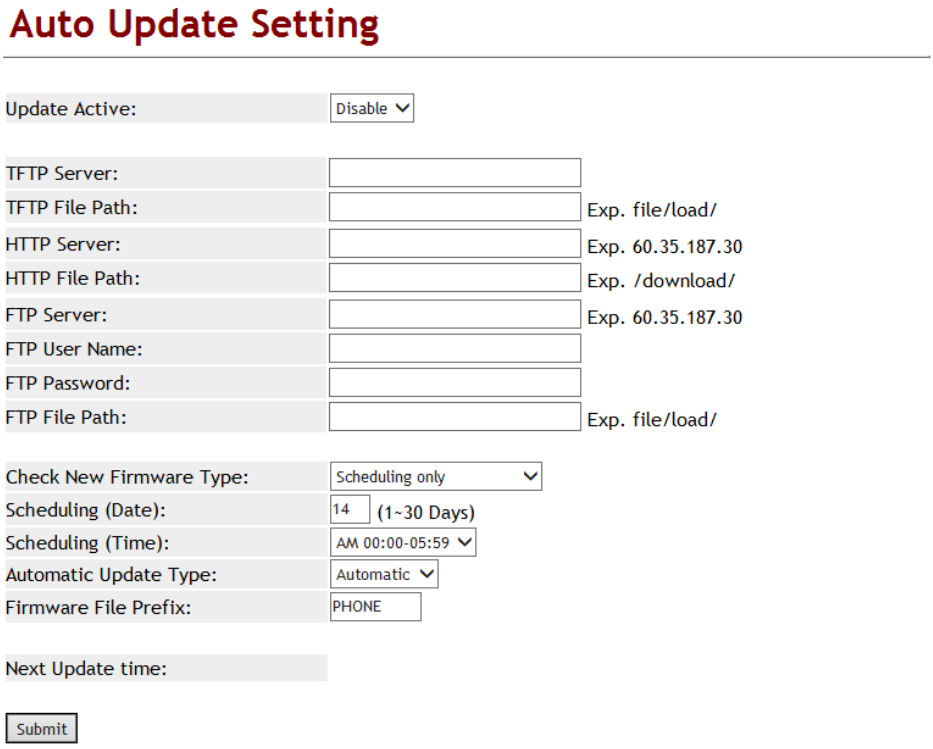
Item	Description
	63 bytes with the “/” in the end, ex: 123/.
HTTP Server	This column can enter IP or Domain Name; maximum length is 63 bytes.
HTTP File Path	This column can enter numbers or strings; maximum length is 63 bytes with the “/” in the end, ex: 123/.
FTP Server	This column can enter IP or Domain Name; maximum length is 63 bytes.
FTP User Name	This column can enter IP or Domain Name; maximum length is 63 bytes.
FTP Password	This column can enter IP or Domain Name; maximum length is 63 bytes.
File File Path	This column can enter numbers or strings; maximum length is 63 bytes with the “/” in the end, ex: 123/.
Next Configuration Time	System will check the Configuration Server when the Next config time is up. The start counting date is the next day, so the Next configuration time will add one day. Count rule： the next day + days + time period + MACaddress + random number = Next config time.
Submit [Button]	Save the settings.

9.3 Auto Update

9.3.1 Function

Provide **rom** format file to upgrade automatically from provision Server.

9.3.2 Instruction



Item	Description
Update Active	Default: Disable. When this function is on, this device will update the firmware from the designate Auto provision Server. Provide options: Disable, TFTP, FTP and HTTP.
TFTP Server	This column can only enter IP with the format of xxx.xxx.xxx.xxx; maximum length is 15 bytes.
TFTP File Path	This column can enter numbers or strings; maximum length is 63 bytes with the "/" in the end, for instance: 123/.
HTTP Server	This column can enter IP or Domain Name; maximum length is 63 bytes.
HTTP File Path	This column can enter numbers or strings; maximum length is 63 bytes with the "/" in the end, ex: 123/.
FTP Server	This column can enter IP or Domain Name; maximum length is 63 bytes.
FTP User Name	This column can enter IP or Domain Name; maximum length is 63 bytes.
FTP Password	This column can enter IP or Domain Name; maximum length is 63 bytes.
File File Path	This column can enter numbers or strings; maximum length is 63 bytes with the "/" in the end, ex: 123/.
Check new Firmware Type	Default: Scheduling Only. Set up the type for checking new firmware. - Power on and Scheduling: Check the new firmware when

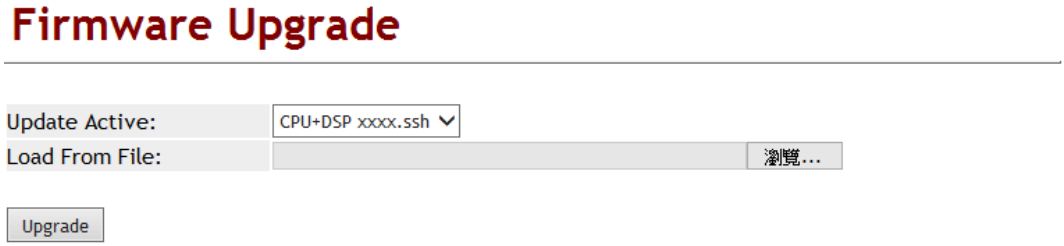
Item	Description
	powers on and base on Scheduling - Scheduling: According to [Next Update Time] to check the new firmware. Provide options: Power on and Schedule, Scheduling Only.
Scheduling (Date)	Default: 14 (day). This column can only enter numbers; maximum length is 2 bytes with a range of 1~30.
Scheduling (Time)	Default: AM 00:00 – 05:59. Provide options: AM 00:00 – 05:59, AM 06:00 – 11:59, AM 12:00 – 17:59, AM 18:00 – 23:59.
Automatic Update Type	Default: Notify only. Set up the type to update firmware. Provide option: Notify only, Automatic. - Notify only: When LP399 discover a new firmware, it will not update firmware immediately. But you will hear a hint tone from LP399 or see a [Found new s/w] message on LCD display. - Automatic: Update firmware automatically.
Firmware File Prefix	Default is production model. This is used to judge which model ask for update, such as Phone or ATA. This column can enter numbers or strings; maximum length is 8 bytes.
Next Update Time	WellGate M1 GSM gateway will check the Update Server when the Next Update time is up. The start counting date is the next day, so the Next Update time will add one day. Count rule： the next day + days + time period + MACaddress + random number = Next Update time.
Submit [Button]	Save the Settings.

9.4 New Firmware

9.4.1 Function

The Firmware upgrade only support ssh format.

9.4.2 Instruction



Item	Description
Update Active	Default: CPU+DSP xxxx.ssh; Upgrade file format.
Load From File	The location of the updating file.
Upgrade [Button]	Execute updating firmware.

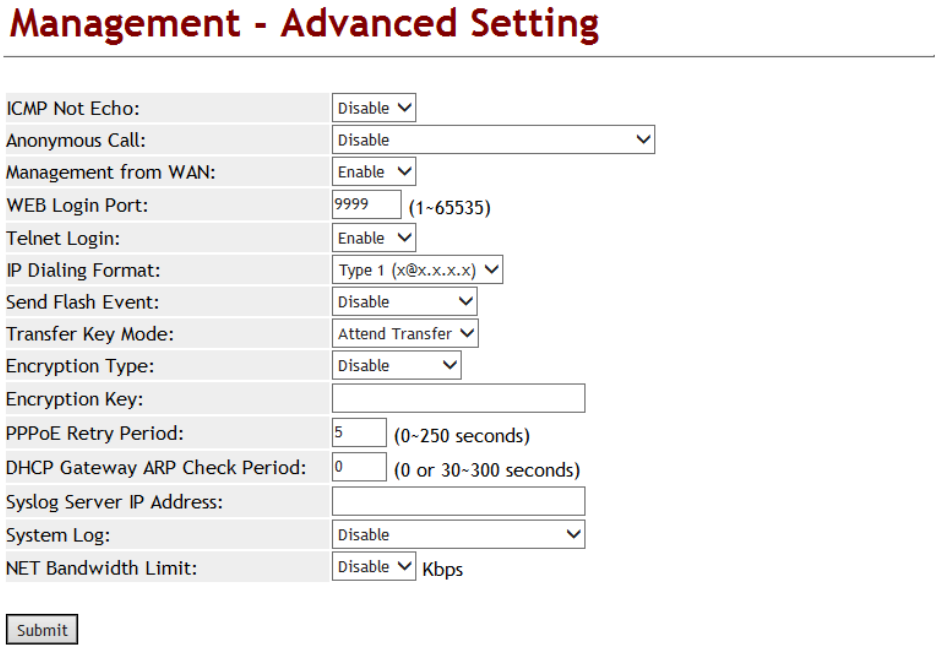
PS：It takes 2 or 3 minutes when you start update firmware. User can't make call during the upgrade. Please don't turn off the power.

9.5 Advanced

9.5.1 Function

Provide anonymous call, billing signal, encryption, syslog and detail parameter function setting.

9.5.2 Instruction


Management - Advanced Setting
ICMP Not Echo: Disable
Anonymous Call: Disable
Management from WAN: Enable
WEB Login Port: 9999 (1~65535)
Telnet Login: Enable
IP Dialing Format: Type 1 (x@x.x.x.x)
Send Flash Event: Disable
Transfer Key Mode: Attend Transfer
Encryption Type: Disable
Encryption Key:
PPPoE Retry Period: 5 (0~250 seconds)
DHCP Gateway ARP Check Period: 0 (0 or 30~300 seconds)
Syslog Server IP Address:
System Log: Disable
NET Bandwidth Limit: Disable Kbps
Submit

(Figure 1.)

Item	Description
ICMP Not Echo	Default: Disable; When this function was set up “Enable”, this device will not responseto the message of ping. Provide options: Disable, Enable.
Anonymous Call	Default: Disable; When this function was set up Type 1/Type 2, this device will use the anonymous Caller ID. Provide options: Disable, Type 1 (anonymous@anonymous.invalid), Type 2 (anonymous@x.x.x.x) 。 *This function must be supported from SIP Server.
Management from WAN	Default: Enable; Allow users login system from WAN Port. When this function was set up Disable, users can only login this device from LAN Port. Provide options: Disable, Enable.
WEB Login Port	Default: 9999. Set up web login port location. This column can only enter numbers; maximum length is 5 bytes with a range of 1~65535.
Telnet Login	Default: Enable; Allows using Telnet to login system. If the setting is disable, User can’t use Telnet to login this device. Provide drop-down options: Disable, Enable.
IP Dialing Format	Default: Type 1 (x@x.x.x.x); When this function was set up Disable, this device can not dial IP. Provide options: Disabled, Type 1 (x@x.x.x.x.), Type 2 (x.x.x.x).
Send Flash event	Default: Disable; Send the type of call waiting.

Item	Description
	When a user presses [Hook/Flash (Transfer)] on LP399, it will send out event messages depending on the type of user selected to the other side. Provide options: Disable, DTMF Event, SIP Info. Disable: Send out [SIP/DSP, Content-Type=applicatio-sdp]. DTMF Event: Send out [RTP event, Payload type=RTP event Flash]. SIP Info: Send out [SIP, Request: INFO sip:xxx@xxxx], [Message Body Signal=16, Duration=250].
Transfer Key Mode	Default: Attend Transfer; The settings have two method that can support server or other IP-phone for transfer action.
Encrypt Type	Default: Disable; Set up SIP encrption type. When this function is on, system will send out encryption information according to encryption type. Provide options: Disable, Welltech, AVS, WALKERSUN1, WALKERSUN2, CSF1, CSF2, GX, VGX, RC4, VOS_R, VGCP. *This function must be supported by SIP Server.
Encrypt Key	Set up encryption key. Some encryption type will ask you to enter the keys to encrypt the information. This column can enter numbers or strings; maximum length is 63 bytes. *This function must be supported by SIP Server.
PPPoE Retry Period	Default: 5; When LP399 failed to connect PPPoE, it will wait for several seconds and try to connect PPPoE again. This column can only enter numbers; maximum length is 3 bytes with a range of 5~255(seconds).
DHCP Gateway ARP Check Period	Default: 0; When use DHCP mode to get IP address, How often to check default gateway there. This column can only enter numbers; If the parameter is 0, that mean disable this feature. Maximum length is 3 bytes with a range of 30~300(seconds).
Syslog Server IP Address	Set up Syslog address; The Syslog Server will receive Debug Log from LP399. This column can enter numbers or strings with the type of xxx.xxx.xxx.xxx; maximum length is 63 bytes.
System Log	Default: Disable; Provide options: Disable, Call Statistics, General Debug, Call Statistics, General Debug, SIP Debug, Call Statistics + SIP Debug, General Debug + SIP Debug, All.
NET Bandwidth Limit	Default: Disable; Set up the transmission limit through LAN Port. When this function is on, LP399 will limit the transmission through LAN Port according to the option. Provide options: Disable, 128, 256, 512, 1024, 2048, 4096, 8192(Kbps).
Submit [Button]	Save the settings.

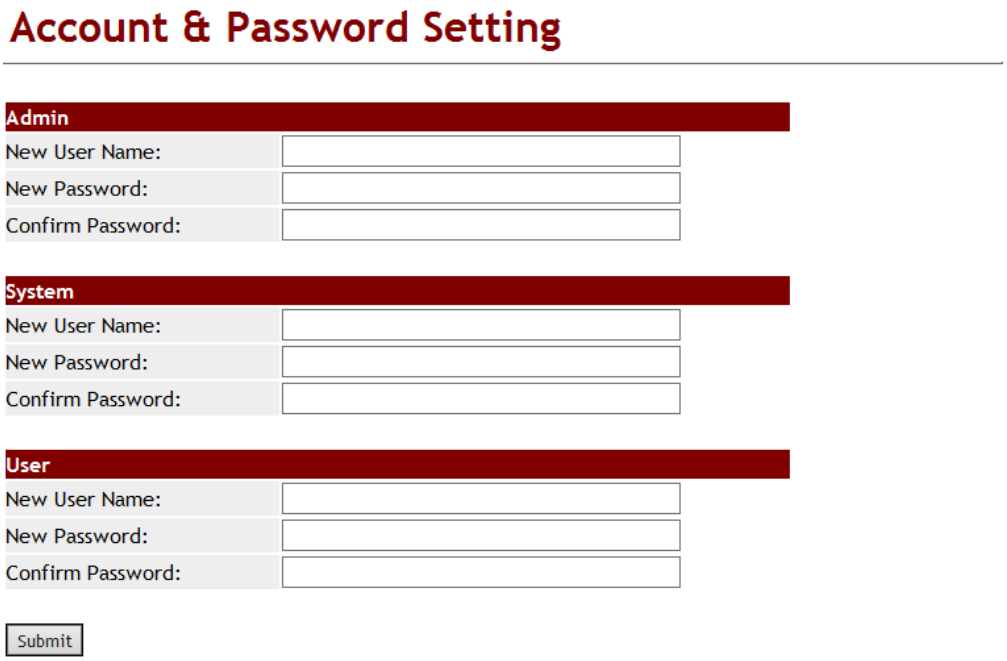
9.6 Password

9.6.1 Function

There are 3 levels login name and password.

9.6.2 Instruction

Figure1: Admin

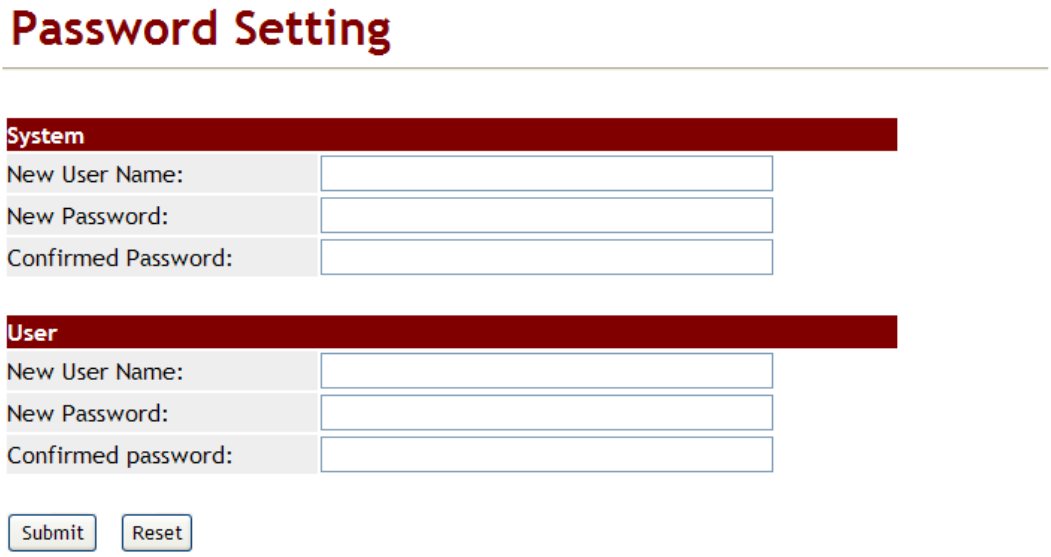


(Figure 1.)

Item	Description
Admin	Administrator(The highest level): ATA only provide one administrator account. This level can configure all setting pages such as: [Phone: Phone Book, Dial Plan, Call Service, Genereal, Volume; Network: WAN, DDNS, VLAN, VPN, SNTP; NAT: LAN, DMZ, Virtual Server; SIP: Service, Code, Advanced, Stun; Management: Status Log, Auto Config, Auto Update, New Firmware, Advanced, Passowrd, Tones, Default, Language; Save & Reboot, Logout]. Default user name: **root**, default user password: **test**
New username	Enter new username which can be Numbers or strings, maximum length is 32 digits.
New password	Enter new password which can be Numbers or strings, maximum length is 32 digits.
Confirmed password	Enter new password to confirm the password setting.
System	System user: ATA only provide one administrator account. This level can modify below setting, [Phone: Phone Book, Dial Plan, Call Service, Genereal, Volume; Network: WAN, DDNS, VLAN, VPN, SNTP; NAT: LAN, DMZ, Virtual Server; SIP: Service, Code, Stun; Management: Status Log, Auto Config, Auto Update, New Firmware, Passowrd, Default, Language; Save & Reboot, Logout]. Default user name: **system** , Default user password: **test**。

Item	Description
New username	Enter new username which can be Numbers or strings, maximum length is 32 digits.
New password	Enter new password which can be Numbers or strings, maximum length is 32 digits.
Confirmed password	Enter new password to confirm the password setting.
User	Normal User: ATA only provides one normal user account. This level only modify below setting, [Phone: Phone Book, Call Service, Genereal, Volume; Network: WAN, DDNS, NAT: LAN, DMZ, Virtual Server; Management: Status Log, Language, Save & Reboot, Logout]. Default user name: **user**, Default user password: **test**.
New username	Enter new username which can be Numbers or strings, maximum length is 32 digits.
New password	Enter new password which can be Numbers or strings, maximum length is 32 digits.
Confirmed password	Enter new password to confirm the password setting.
Submit [button]	Save the configuration.
Reset [button]	Clear the configuration.

Figure 2: System Authority



(Figure 2.)

Item	Description
System	System user: ATA only provides one administrator account. This level can modify below setting, [Phone: Phone Book, Dial Plan, Call Service, Genereal, Volume; Network: WAN, DDNS, VLAN, VPN, SNTP; NAT: LAN, DMZ, Virtual Server; SIP: Service, Code, Stun; Management: Status Log, Auto Config, Auto Update, New Firmware, Passowrd, Default, Language; Save & Reboot, Logout]. Default user name: **system**, Default user password: **test**.
New username	Enter new username which can be Numbers or strings,

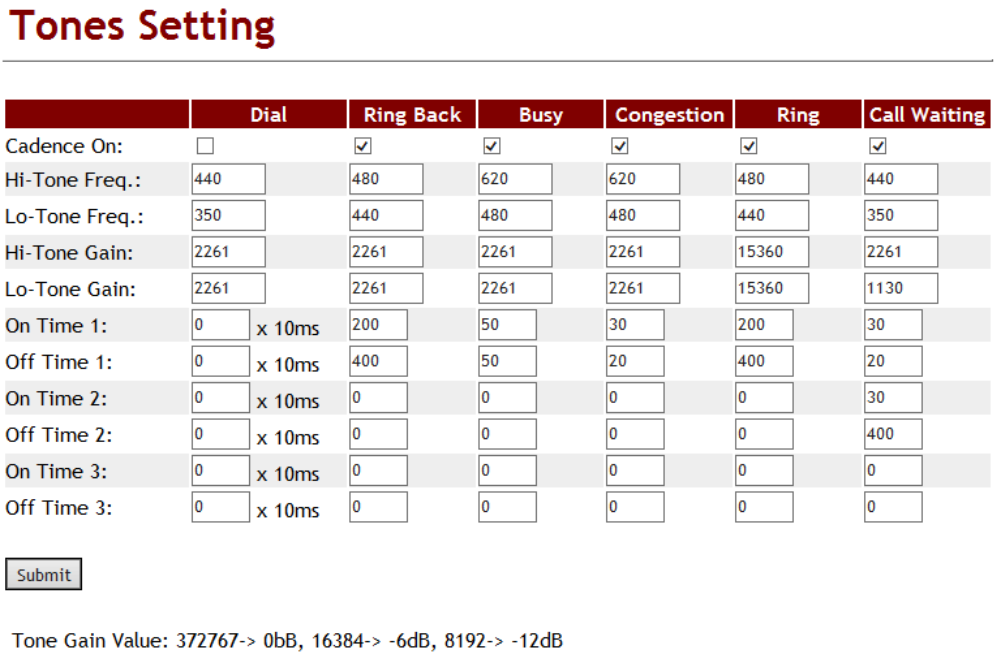
Item	Description
	maximum length is 32 digits.
New password	Enter new password which can be Numbers or strings, maximum length is 32 digits.
Confirmed password	Enter new password to confirm the password setting.
User	Normal User: ATA only provide one normal user account. This level only can modify below setting, [Phone: Phone Book, Call Service, Genereal, Volume; Network: WAN, DDNS, NAT: LAN, DMZ, Virtual Server; Management: Status Log, Language, Save & Reboot, Logout] 。 Default user name: **user**, Default user password: **test**.
New username	Input new username. Can be Numerals or strings, maximum length is 32 bytes.
New password	Input new password. Can be Numerals or strings, maximum length is 32 bytes.
Confirmed password	Input new password to confirm the password setting.
Submit [button]	Save the configuration.

9.7 Tones Setting

9.7.1 Function

Tone setting provides Dial, Ring Back, Busy, Congestion, Ring, Call Waiting Tone and Multi-Frequency configuration.

9.7.2 Instruction



Item	Description
Dial Tone	Dial tone configuration.
Cadence On	Default is disable.
Hi-Tone Freq	Default is 440. Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Lo-Tone Freq	Default is 350. Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Hi-Tone Gain	Default: 4522; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
Lo-Tone Gain	Default: 2261; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
On Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Ring Back	Ring back tone configuration.
Candence On	Default is enable

Item	Description
Hi-Tone Freq	Default: 440; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Lo-Tone Freq	Default: 350; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Hi-Tone Gain	Default: 4522; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
Lo-Tone Gain	Default: 2261; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
On Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Busy	Busy Tone configuration.
Candence On	Default is enable
Hi-Tone Freq	Default: 440; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Lo-Tone Freq	Default: 350; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Hi-Tone Gain	Default: 4522; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
Lo-Tone Gain	Default: 2261; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
On Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Congestion	Congestion tone configuration
Candence On	Default is enable.
Hi-Tone Freq	Default: 440; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Lo-Tone Freq	Default: 350; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Hi-Tone Gain	Default: 4522; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.

Item	Description
Lo-Tone Gain	Default: 2261; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
On Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Ring	Ring tone configuration.
Candence On	Default is enable
Hi-Tone Freq	Default: 440; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Lo-Tone Freq	Default: 350; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Hi-Tone Gain	Default: 4522; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
Lo-Tone Gain	Default: 2261; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
On Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Call Waiting	Call waiting tone configuration.
Candence On	Default is enable
Hi-Tone Freq	Default: 440; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Lo-Tone Freq	Default: 350; Only numerals are acceptable. Data range: (0~4096). Maximum length: 4 bytes.
Hi-Tone Gain	Default: 4522; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
Lo-Tone Gain	Default: 2261; Only numerals are acceptable. Data range: (0~65535). Maximum length: 5 bytes.
On Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 1	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.

Item	Description
On Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 2	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
On Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Off Time 3	Default is 0; The unit is 10ms; Only numerals are acceptable. Data range: 0~ 999, Maximum length: 3 bytes.
Submit [button]	Save the configuration.
Reset [button]	Clear the configuration.

9.8 Default

9.8.1 Function

Restore whole configuration setting to factory default except Phone Book.

9.8.2 Instruction

Item	Description
Reset [Button]	Clear all Setting and reset to default, Then reboot system automatically.
Export [Button]	[Export] button, Provide device configuration back up. Default file name is config.db.
Restore [Button]	Provide restore feature, Import file format is .db.

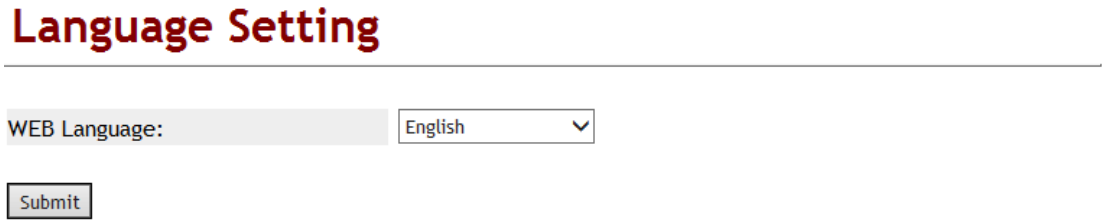
Note: If user use [Update.htm] web page's [Restore Configuration] to upload [config.db] file, it can't clear configuration from this feature.

9.9 Language

9.9.1 Function

Provide language option for web configuration, ATA will auto reboot after press [Submit]. Don't remove Power adaptor at this moment.

9.9.2 Instruction



Item	Description
Choice Language	Default is English. ATA has to restart after you have changed Web language. Option: English, Chinese, Simplified Chinese
Submit [button]	Save the configuration.

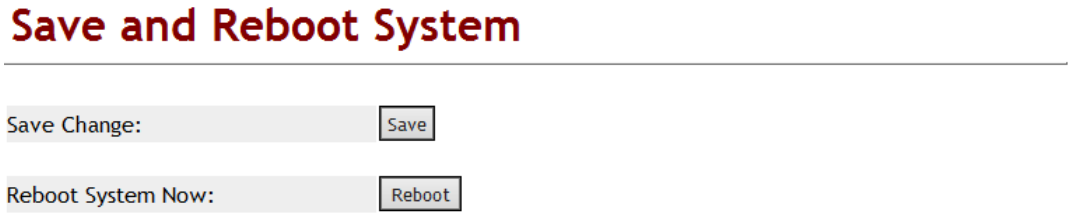
10. Save & Reboot

Save configuration and Reboot ATA.

10.1 Function

Save Change: Save configuration and auto reboot to take effect.
Reboot System: Reboot ATA

10.2 Instruction



Item	Description
Save [Button]	Save all Settings and restart device.
Reboot [Button]	Restart device.

11. Logout

11.1 Fuction

Logout system and return to login page.

11.2 Instruction

Item	Description
Logout [Button]	Logout system Settings menu; Return web page login.